


THE  
CANADA  
YEAR BOOK  
1916-17



THE CANADA  
YEAR BOOK 1916-17



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## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA.

Area of the Dominion of Canada in square miles:—Land, 3,603,910; Water, 125,755; Total, 3,729,665.

Items.	1911.	1912.	1913.	1914.	1915.	1916.
Population—						
Males.....	3,821,995	—	—	—	—	—
Females.....	3,384,648	—	—	—	—	—
<b>Total.....</b>	<b>7,206,643</b>	<b>7,343,000</b>	<b>7,530,000</b>	<b>7,725,000</b>	<b>7,928,000</b>	<b>8,140,000</b>
Immigration.....	311,084	354,237	402,432	384,878	144,789	48,537
Agriculture—						
Wheat..... Acres	8,863,151	10,996,700	11,015,000	10,293,000	15,109,415	15,369,709
Oats..... " "	8,652,015	9,966,000	10,434,000	10,061,500	11,555,681	10,996,487
Barley..... " "	1,286,611	1,581,300	1,613,000	1,495,600	1,718,432	1,802,996
Corn..... " "	293,775	298,190	278,140	256,000	253,300	173,000
Potatoes..... " "	465,903	484,000	473,500	475,000	485,777	472,992
Hay and Clover..... " "	8,281,932	8,276,000	8,169,000	7,997,000	7,776,995	7,821,257
Wheat..... Bushels	132,048,782	224,159,000	231,717,000	161,280,000	393,542,600	262,781,000
Oats..... " "	243,506,292	391,629,000	404,669,000	313,078,000	464,954,400	410,211,000
Barley..... " "	28,846,425	49,398,000	48,319,000	36,201,000	54,017,100	42,770,000
Corn..... " "	14,321,833	16,949,700	16,772,600	13,924,000	14,368,000	6,282,000
Potatoes..... " "	55,609,883	84,885,000	78,544,000	85,672,000	60,353,000	63,297,000
Hay and Clover..... Tons	11,303,609	12,117,000	10,859,000	10,259,000	10,612,000	14,527,000
Wheat..... \$	148,123,000	139,090,000	156,462,000	196,418,000	356,816,900	344,096,400
Oats..... \$	132,949,000	126,304,000	128,893,000	151,811,000	171,091,000	210,957,500
Barley..... \$	24,704,000	22,354,000	20,144,000	21,557,000	27,985,900	35,024,000
Corn..... \$	12,357,000	10,540,700	10,784,300	9,808,000	10,243,000	6,747,000
Potatoes..... \$	42,359,000	37,329,000	38,418,000	41,598,000	36,459,800	50,982,300
Hay and Clover..... \$	162,846,000	134,338,000	124,696,000	145,999,000	152,531,600	168,547,900
Horses..... No.	2,595,912	2,692,357	2,866,008	2,947,000	2,996,099	3,258,342
Milk Cows..... " "	2,594,179	2,604,488	2,740,434	2,673,286	2,666,846	2,833,433
Other Cattle..... " "	3,939,257	3,827,373	3,915,687	3,363,531	3,399,155	3,760,718
Sheep..... " "	2,175,302	2,082,381	2,128,531	2,058,045	2,038,662	2,022,941
Swine..... " "	3,610,428	3,447,310	3,448,326	3,434,261	3,111,900	3,474,840
Horses..... \$	381,915,505	—	420,079,250	371,430,363	373,381,000	418,684,300
Milk Cows..... \$	109,575,526	—	115,369,294	153,632,637	163,919,000	198,896,300
Other Cattle..... \$	86,278,490	—	86,522,140	143,498,156	152,461,000	204,476,900
Sheep..... \$	10,701,691	—	10,672,803	14,550,710	16,226,000	20,927,200
Swine..... \$	26,986,621	—	26,664,735	42,418,325	43,653,000	60,701,000
<b>Total value.....</b>	<b>\$ 615,457,833</b>	<b>—</b>	<b>659,308,222</b>	<b>725,530,191</b>	<b>749,640,000</b>	<b>903,685,700</b>
Cheese, home-made.. lb.	1,371,092	—	—	—	—	—
" factory..... " "	199,904,205	—	—	—	83,887,837	192,968,597
Butter, home-made.. " "	137,110,200	—	—	—	—	—
" factory..... " "	64,489,398	—	—	—	83,991,453	82,564,130
Cheese, home-made.... \$	154,038	—	—	—	—	—
" factory..... \$	21,587,124	—	—	—	27,097,176	35,512,622
Butter, home-made.... \$	30,269,497	—	—	—	—	—
" factory..... \$	15,645,845	—	—	—	24,385,052	28,966,355
Field Crops—  						
<b>Total area..... Acres</b>	<b>34,545,672</b>	<b>35,575,550</b>	<b>35,375,430</b>	<b>33,436,675</b>	<b>39,140,460</b>	<b>38,930,333</b>
<b>Total value.....</b>	<b>\$ 597,926,000</b>	<b>557,344,100</b>	<b>552,771,500</b>	<b>638,580,300</b>	<b>825,370,600</b>	<b>886,494,900</b>
Fisheries—						
<b>Total value..... \$</b>	<b>29,965,433</b>	<b>34,667,872</b>	<b>33,389,464</b>	<b>33,207,748</b>	<b>31,264,631</b>	<b>35,860,708</b>
Minerals—						
Gold..... oz.	473,159	611,885	802,973	773,178	918,056	930,492
Silver..... " "	32,559,044	31,955,560	31,845,803	28,449,821	26,625,660	25,459,741
Copper..... lb.	55,648,011	77,832,127	76,976,925	75,735,960	160,785,150	117,150,028
Lead..... " "	23,784,969	35,763,476	37,662,703	36,337,765	46,316,450	41,593,680
Nickel..... " "	34,098,744	44,841,542	49,676,772	45,517,937	68,308,657	82,968,564
Pig Iron..... Tons	917,355	1,014,587	1,128,967	783,164	913,775	1,169,257
Coal..... " "	11,323,338	14,512,829	15,012,178	13,267,529	13,267,023	14,461,678
Cement..... bbl.	5,692,915	7,132,732	8,658,805	7,172,480	5,681,032	5,359,050
Gold..... \$	9,781,077	12,684,794	16,598,923	15,983,007	18,977,901	19,234,976
Silver..... \$	17,355,272	19,440,165	19,040,924	15,593,631	13,228,842	16,271,121
Copper..... \$	6,896,998	12,718,548	11,753,606	10,301,606	17,410,635	31,867,150
Lead..... \$	827,717	1,597,554	1,754,705	1,627,568	2,593,721	3,540,870
Nickel..... \$	10,229,623	13,452,463	14,903,032	13,655,381	20,492,597	29,035,498
Pig Iron..... \$	12,307,125	14,550,999	16,540,012	10,002,856	11,374,199	16,750,903
Coal..... \$	26,467,646	36,019,044	37,334,940	33,471,801	32,111,182	38,857,557
Cement..... \$	7,644,537	9,106,556	11,019,418	9,187,924	6,977,024	6,529,861
<b>Total value..... \$</b>	<b>103,220,994</b>	<b>135,048,296</b>	<b>145,634,812</b>	<b>128,863,075</b>	<b>137,920,759</b>	<b>177,357,454</b>



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—con.

Items.	1911.	1912.	1913.	1914.	1915.	1916.
<b>Manufactures<sup>1</sup>—</b>						
Employees..... No.	515,203	—	—	—	—	—
Capital..... \$	1,247,583,609	—	—	—	—	1,958,705,230
Salaries and wages..... \$	241,008,416	—	—	—	—	283,311,505
Products..... \$	1,165,975,639	—	—	—	—	1,381,547,225
<b>Trade—</b>						
Exports <sup>2</sup> ..... \$	290,000,210	307,716,151	377,068,355	455,437,224	461,442,509	779,300,070
Imports <sup>3</sup> ..... \$	451,745,108	521,448,809	670,089,066	618,457,144	455,446,312	507,817,159
<b>Total..... \$</b>	<b>741,745,318</b>	<b>829,164,460</b>	<b>1,047,157,421</b>	<b>1,073,894,368</b>	<b>916,888,821</b>	<b>1,287,117,229</b>
<b>Coin and Bullion—</b>						
Exports..... \$	7,196,155	7,601,099	16,163,702	23,560,704	29,366,368	103,572,432
Imports..... \$	10,206,210	26,033,881	5,427,979	15,235,305	131,992,992	34,260,202
<b>Total..... \$</b>	<b>17,402,365</b>	<b>33,634,980</b>	<b>21,591,681</b>	<b>38,796,009</b>	<b>161,359,360</b>	<b>137,832,634</b>
<b>Exports, domestic—</b>						
Wheat..... Bush.	45,802,115	64,466,286	93,166,000	120,426,579	71,913,385	157,745,469
Wheat flour..... bbl.	3,049,046	3,738,836	4,478,043	4,832,183	4,952,337	6,400,214
Oats..... Bush.	5,431,662	8,880,675	10,478,554	34,996,664	17,768,166	26,816,322
Hay..... Tons	326,132	784,864	394,208	191,515	131,875	255,407
Bacon..... lb.	56,068,607	58,979,963	36,212,180	23,859,754	76,801,419	144,918,867
Butter..... "	3,142,682	8,844,402	828,323	1,228,753	2,724,913	3,441,183
Cheese..... "	181,895,724	163,450,684	155,216,392	144,478,340	137,601,661	168,961,583
Wheat..... \$	45,521,134	62,590,563	88,608,730	117,719,217	74,293,548	172,896,445
Wheat flour..... \$	13,854,790	16,034,064	19,970,689	20,581,079	24,610,946	35,767,044
Oats..... \$	2,144,846	3,819,642	5,067,950	13,379,849	8,961,126	14,637,849
Hay..... \$	2,723,291	6,373,590	3,950,058	1,787,050	2,232,558	5,849,428
Bacon..... \$	8,019,454	7,520,362	5,350,845	3,763,195	11,811,825	25,710,767
Butter..... \$	744,288	2,077,916	223,578	309,046	639,625	1,018,769
Cheese..... \$	20,739,507	20,888,818	20,697,144	18,868,785	19,213,501	26,690,500
Fisheries..... \$	15,675,544	16,704,678	16,336,721	20,623,560	19,687,088	22,377,977
Forest produce..... \$	45,439,057	40,892,674	43,255,060	42,792,137	42,650,683	51,271,400
Manufactures..... \$	35,283,118	35,836,284	43,692,708	57,443,452	85,539,501	242,034,998
Minerals..... \$	42,787,561	41,324,516	57,442,546	59,039,054	51,740,989	66,589,861
Gold..... \$	5,344,465	7,193,392	11,226,573	13,326,755	15,406,510	16,870,394
Silver..... oz.	33,731,010	30,882,716	35,264,018	36,758,276	25,355,305	27,794,566
Copper..... lb.	55,005,342	56,426,980	83,064,420	83,250,198	62,999,718	111,046,300
Nickel..... "	34,767,523	33,230,708	48,168,090	50,580,536	45,412,017	70,443,000
Coal..... Tons	2,315,171	1,494,756	2,055,993	1,498,820	1,512,487	1,971,124
Silver..... \$	17,269,168	15,908,409	20,202,559	20,971,538	13,516,390	14,298,351
Copper..... \$	5,575,033	5,646,206	9,911,542	9,489,729	6,552,005	14,670,073
Nickel..... \$	3,842,332	3,743,920	5,045,197	5,374,738	5,063,656	7,714,769
Coal..... \$	6,014,095	4,338,128	5,555,099	3,703,765	4,466,268	6,032,765
<b>Imports for consumption—</b>						
Agricultural produce..... \$	47,061,788	51,869,087	55,391,008	53,544,539	52,449,384	54,618,369
Animals and their produce..... \$	23,258,364	29,499,117	41,088,978	58,800,211	27,873,971	37,555,794
Fisheries..... \$	1,995,091	2,409,618	2,674,776	2,331,772	1,856,298	1,591,073
Forest produce..... \$	12,873,875	15,201,526	20,138,388	16,789,413	9,613,891	5,240,154
Manufactures..... \$	298,757,039	340,573,248	456,463,594	417,555,537	286,214,321	305,474,649
Minerals..... \$	44,020,074	54,935,717	65,820,233	71,694,173	54,171,002	48,022,694
Miscellaneous <sup>4</sup> ..... \$	33,985,087	52,993,823	33,940,068	41,896,804	155,260,437	90,174,628
<b>Steam Railways—</b>						
Miles in operation.....	25,400	26,727	29,304	30,795	35,578	37,434
Capital..... \$	1,528,689,201	1,588,937,526	1,531,830,692	1,808,820,761	1,875,810,888	1,893,125,774
Passengers carried..... No.	37,097,718	41,124,181	46,230,765	46,702,280	46,322,035	49,627,671
Freight..... Tons	79,884,282	89,444,331	106,992,710	101,393,989	87,204,838	109,659,088
Earnings..... \$	188,733,494	219,403,753	256,702,703	243,083,539	199,843,072	261,888,654
Expenses..... \$	131,033,785	150,726,540	182,011,690	178,975,259	147,731,099	180,542,259
<b>Electric Railways—</b>						
Miles in operation.....	1,224	1,308	1,357	1,561	1,590	1,674
Capital..... \$	111,532,347	122,841,946	141,235,631	147,595,342	150,344,002	154,895,584
Passengers carried..... No.	426,296,792	488,865,682	597,863,801	614,709,819	562,302,373	580,094,167
Freight..... Tons	1,228,362	1,435,525	1,957,930	1,845,923	1,433,601	1,936,674
Earnings..... \$	20,356,952	23,499,250	28,216,111	29,691,007	26,922,900	20,402,761
Expenses..... \$	12,096,134	14,266,675	17,765,372	19,107,818	18,131,842	18,099,906

<sup>1</sup>See under notes at foot of page xiv.<sup>2</sup>Exports of merchandise, domestic and foreign.<sup>3</sup>Imports of merchandise for home consumption.<sup>4</sup>Coin and bullion included.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded.

Items.	1911.	1912.	1913.	1914.	1915.	1916.
<b>Canals—</b>						
Passengers carried.... No.	304,904	292,267	335,799	287,326	250,836	263,648
Freight..... Tons	38,030,353	47,587,245	52,053,913	37,023,237	15,198,803	23,583,491
<b>Shipping (sea-going)—</b>						
Entered..... Tons	11,919,339	12,768,191	13,575,193	14,982,393	13,132,944	12,616,927
Cleared..... " "	10,377,847	11,821,414	12,655,905	14,586,093	12,269,642	12,210,723
<b>Total .....</b>	<b>22,297,186</b>	<b>24,589,605</b>	<b>26,231,098</b>	<b>29,568,486</b>	<b>25,402,586</b>	<b>24,827,650</b>
<b>Telegraphs, Government,</b> <b>miles of line.....</b>	<b>8,446</b>	<b>8,639</b>	<b>9,729</b>	<b>10,356</b>	<b>11,497</b>	<b>11,843</b>
<b>Telegraphs, other, miles of</b> <b>line.....</b>	<b>33,905</b>	<b>34,841</b>	<b>36,604</b>	<b>38,503</b>	<b>41,065</b>	<b>43,473</b>
<b>Postal—</b>						
Money orders issued.... \$	70,614,862	84,065,891	101,153,272	109,500,670	89,957,906	94,469,871
Revenue..... \$	9,146,952	10,482,255	12,060,476	12,956,216	13,046,650	18,858,410
Expenditure..... \$	7,954,223	9,172,035	10,882,505	12,822,058	15,961,197	16,009,139
Revenue..... \$	117,780,410	136,108,217	168,689,903	163,174,395	133,073,482	172,147,838
Expenditure..... \$	87,774,198	98,161,441	112,059,537	127,384,473	135,523,207	130,350,727
Gross debt..... \$	474,941,437	508,338,592	483,232,555	544,391,369	700,473,814	936,987,802
Assets..... \$	134,899,435	168,419,131	168,930,929	208,394,519	251,097,731	321,831,631
Net debt..... \$	340,042,052	339,919,461	314,301,626	335,996,850	449,376,083	615,156,171
<b>Chartered Banks—</b>						
Capital paid up..... \$	103,009,256	112,730,943	116,297,729	114,759,807	113,982,741	113,175,353
Assets..... \$	1,303,131,260	1,470,065,478	1,530,093,671	1,555,676,395	1,596,424,643	1,839,286,709
Liabilities (excluding capital and reserves)..... \$	1,097,661,393	1,240,124,354	1,287,372,534	1,309,944,006	1,353,623,123	1,596,905,337
Deposits <sup>1</sup> ..... \$	980,433,788	1,102,910,383	1,126,871,523	1,144,210,363	1,198,340,315	1,418,035,429
<b>Savings Banks—</b>						
Deposits in Post Office.. \$	43,330,579	43,563,764	42,728,942	41,591,287	39,995,406	40,008,418
Government..... \$	14,763,752	14,655,564	14,411,541	13,976,317	14,006,157	13,520,009
Special..... \$	34,770,386	39,526,755	40,133,551	39,110,439	37,817,474	40,405,037
<b>Loan and Trust Companies—</b>						
Assets..... \$	389,701,988	395,652,787	478,658,228	—	—	—
Liabilities..... \$	389,701,988	395,652,787	478,658,228	—	—	—
Deposits..... \$	33,742,513	33,235,992	32,631,806	—	—	—
<b>Fire Insurance—<sup>2</sup></b>						
Amount at risk..... \$	2,279,868,346	2,684,355,895	3,151,930,389	3,456,019,009	3,531,620,802	3,720,058,236
Income for the year..... \$	20,575,255	23,194,521	25,745,947	27,499,158	26,474,833	27,739,852
<b>Fire Insurance—<sup>3</sup></b>						
Amount at risk..... \$	—	—	—	—	—	849,915,678
Income..... \$	—	—	—	—	—	3,902,504
<b>Life Insurance—<sup>4</sup></b>						
Amount at risk..... \$	950,220,771	1,070,308,669	1,168,590,027	1,242,160,478	1,311,616,677	1,402,466,288
Income for the year..... \$	31,619,626	35,709,516	38,641,206	41,094,095	45,106,678	48,237,493
<b>Life Insurance—<sup>5</sup></b>						
Amount at risk..... \$	—	—	—	—	—	348,097,229
Income..... \$	—	—	—	—	—	5,311,003

<sup>1</sup>Including amounts deposited elsewhere than in Canada. <sup>2</sup>Fire insurance transacted under Dominion License. <sup>3</sup>Fire insurance transacted under Provincial License. <sup>4</sup>Life insurance transacted under Dominion License. <sup>5</sup>Life insurance transacted under Provincial License.

## NOTES.

The statistics of manufactures in 1911 and 1916 are for works employing five hands and over, except in the case of butter and cheese factories, flour and grist mills, electric light plants, lumber, lath and shingle mills, lime kilns, brick and tile works and fish preserved.

In the foregoing Summary the statistics of immigration, fisheries, trade, shipping, the Post Office, the public debt, revenue and expenditure and the Post Office and Government Savings banks relate to the fiscal year ended March 31 in 1911-16. Mineral, banking, insurance and loan companies' statistics relate to the calendar years and railway statistics to the years ended June 30. The statistics of population, agriculture, dairying industries and manufactures are either those of the Census of 1911, or are estimates based thereon for 1912 to 1916. Canal statistics are those of the navigation seasons. The telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.



## THE CANADA YEAR BOOK, 1916-17.

In order that the date of the Year Book may in future be that of the actual year of issue, the present edition appears as "The Canada Year Book, 1916-17," and it includes, as far as possible, data of the year 1917, as well as of the year 1916. In other respects the work follows the lines of previous issues, with the additional features indicated in the preface. The volume has been edited by Mr. ERNEST H. GODFREY, F.S.S., and grateful acknowledgments of valuable co-operation are again tendered to officers of the Dominion and Provincial Governments and of Municipalities throughout Canada. The tables have been compiled as usual by Mr. JAMES SKEAD and Mr. JOSEPH WILKINS, and the diagrams have been drawn by Mr. R. E. WATTS.

R. H. COATS,  
Dominion Statistician and  
Controller of Census.

Census and Statistics Office,  
Ottawa, October 31, 1917.

## PREFACE.

The present edition of the Canada Year Book opens with an illustrated article on the Natural Resources of the Dominion of Canada, and includes also an article on the Economic Geology of Canada in 1916.

Following the rule previously adopted, articles and tables not requiring alteration or bringing up to date have been omitted. A selected list of articles and tables in previous issues is given on pages 706-708.

In Section III (Area and Population) are new tables showing the principal results of the Census of Manitoba, Saskatchewan and Alberta, as taken in 1916. Section IV (Education) has been revised and brought up to date with the assistance of the Provincial Deputy Ministers and Superintendents of Education. It includes a comprehensive description of the public educational system of Canada, from the elementary schools to the universities, and statistical tables dating from the beginning of the century. In Section VI (Production) the statistics and estimates of the areas, yields and values of field crops, and of the numbers and values of farm live stock, have been revised to agree with the finally ascertained results of the Census of the Prairie Provinces for 1915 and 1916. Tables have been compiled from previous issues to compare the average monthly prices of agricultural produce for recent years. The description given last year of the Dominion and Provincial Agricultural Experiment Stations has been revised and brought up to date. Tables of the world's production of gold and silver have been added to the statistics of Canadian mineral production. In this Section are also included the principal results of the Census of Manufactures, taken in 1916 for the year 1915. Section VII (Trade and Commerce) has been re-arranged into three divisions consisting of (1) historical tables of imports and exports over a long series of years, mostly from Confederation; (2) main tables showing the current trend of trade with the United Kingdom, the United States and All Countries, so printed as to effect a considerable saving of space, combined with greater convenience of comparison; and (3) analytical tables showing the trade of Canada with particular countries and for particular articles. To Section VIII (Transportation and Communications) have been added a digest of the provincial laws relating to motor vehicles, with statistics of their registration in recent years, and Tables of British Shipping. In Section X (Finance) the statistics of fire and life insurance have been expanded to include companies doing business under provincial license. A description of the new Honorary Advisory Council of Scientific and Industrial Research is given in Section XI (Administration).

In all sections is given the latest information available up to the time of printing, and all the tables include, wherever possible, the figures of 1917 as well as those of 1916.

ERNEST H. GODFREY,  
Editor.



# I.—NATURAL RESOURCES OF THE DOMINION OF CANADA.

By WATSON GRIFFIN, Department of Trade and Commerce, Ottawa.

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## INTRODUCTION.



THE natural resources of Canada may be said to include all those endowments of Nature which can be utilized by man for sustenance and the creation of wealth. In describing them we must take into consideration the climate and soil, the reservoirs of water, the waterfalls, waterways and harbours, the forests, wild animals, fisheries and minerals of a country fronting on the Atlantic, Pacific and Arctic oceans and having an area of over 3,729,000 square miles, or about the same size as the continent of Europe.

As the agricultural, horticultural and forest products and even the animal life of a country depend as much upon the climate as upon the soil, it is necessary to know something about the physical characteristics, the latitudes and altitudes and other conditions affecting the climate in order to estimate the natural resources.

Prince Edward Island, the smallest province of the Dominion, lies at the south of the gulf of St. Lawrence and is separated from the mainland of New Brunswick and Nova Scotia by Northumberland strait. It is 150 miles in length, varies in width from 4 to 30 miles, and has an area of 2,184 square miles. As an illustration of the difference between natural resources undeveloped and natural resources developed, we may compare Prince Edward Island with the islands of Jersey and Guernsey in the English Channel, which have together almost exactly the same population as the smallest Canadian province, although their area is only 69½ square miles. Prince Edward Island, with over thirty-one times the area of Jersey and Guernsey, with nearly the whole of its area very fertile, with a climate most favourable to

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

human life and to all kinds of live stock, with fish in abundance in the surrounding sea and all the bays and river mouths, might have a population of over 3,000,000 and yet be less densely populated than the Channel Islands.

The province of Nova Scotia is 386 miles in length by from 50 to 100 miles in width, with a land area of 21,068 square miles, and extends from the 43rd to the 47th parallel of latitude. It consists of the peninsula of Nova Scotia, connected with New Brunswick by the isthmus of Chignecto and the island of Cape Breton, which is separated from the mainland of the province by the narrow strait of Canso. Cape Breton Island has an extreme length from north to south of 110 miles, its greatest breadth being 87 miles and its area 3,120 square miles. Cape Breton is not only surrounded by the sea, but has the sea inside of it, for the beautiful salt-water lakes of Bras d'Or may be regarded as merely arms of the sea, with which they are connected at the northeast by two natural channels, while at the south, St. Peter's ship canal connects them with St. Peter's bay. Nova Scotia is almost as large as Belgium and Holland combined, which together have over 12,000,000 people. As regards climate, natural resources and accessibility Nova Scotia compares very favourably with Holland and Belgium.

The province of New Brunswick, with a land area of 27,911 square miles, may be compared with Scotland, which has a land area of 29,797 square miles. It is not a mountainous country, but is full of low hills and valleys, with a few high hills. New Brunswick does not come so near to being an island as Nova Scotia, but, with the bay of Chaleur at the north, the gulf of St. Lawrence and Northumberland strait at the east, the bay of Fundy at the south and Passamaquoddy bay at the southwest, it has a very extensive sea coast. Although larger than Nova Scotia the province of New Brunswick does not cover so many degrees of latitude. Its most southern point is a little south of 45° N. latitude and its most northern point a little north of 48° N. To the southwest of the mainland of New Brunswick is a group of small islands belonging to the province, the most important being Campobello with an area of 115,000 acres, Grand Manan with an area of 37,000 acres and the West Isles having an area of 8,000 acres. The soil of these islands is generally fertile, but only a small proportion of it is under cultivation.

All three of the Maritime Provinces are well provided with fine harbours. The number of bays along their coasts is extraordinary, and the length of the coast line in proportion to the area is remarkable.

The province of Quebec might with accuracy be included among the Maritime Provinces, for the gulf of St. Lawrence is really a part of the Atlantic, and salt water washes the coasts of the province for many miles. Then the territory of Ungava, which has recently been added to Quebec province, has a very long coast line on Hudson bay, Hudson strait and Ungava bay. Before Ungava was placed under the jurisdiction of Quebec the total area of the province was 351,873 square miles. Now it is 706,834 square miles—almost double its former area. Its most southern point is in latitude N. 45°, and its most northern point is in latitude N. 62° 39'. Including Ungava, Quebec province is larger



## INTRODUCTION.

than Belgium, Holland, Germany, Denmark, Sweden, Austria-Hungary and Bulgaria combined, which had a population of over 140,000,000 before the great war began. Without Ungava, Quebec is as large as Germany, Holland, Belgium and Italy combined.

The province of Ontario is the section of the Dominion lying between the great international lakes and Hudson bay, its most southern point being in latitude N.  $42^{\circ} 16'$ , and its most northern point in latitude N.  $56^{\circ} 48'$ . It extends from the western boundary of Quebec to the eastern boundary of Manitoba and has an area of 365,880 square miles of land and 41,382 square miles of water, a total of 407,262 square miles. It is nearly as large as Germany and France combined. The part of the province south of the French river and Georgian bay, which is popularly called Old Ontario or Southern Ontario as distinguished from New Ontario or Northern Ontario, is almost exactly the same size as England.

The part of Canada extending from the western boundary of Ontario to the Rocky Mountains and from the United States boundary to the Arctic ocean may be appropriately called the Western Plain of Canada. Politically it has been subdivided into the three prairie provinces, Manitoba, Saskatchewan and Alberta, and the Northwest Territories. Each of the prairie provinces extends from the United States boundary to the 60th parallel of latitude, while the Northwest Territories include the whole of the Western Plain north of the 60th parallel of latitude. Manitoba has a total area of 251,832 square miles, Saskatchewan 251,700 square miles and Alberta 255,285 square miles, a total of 758,817 square miles. Manitoba is larger than Germany, Belgium, Holland and Switzerland combined; an area as great as Austria-Hungary could be taken out of Saskatchewan and 10,400 square miles would remain; Alberta could give away 8,485 square miles and still have an area as large as Italy, Greece, Montenegro, Servia, Rumania and Bulgaria combined.

The province of British Columbia is the wonderland of Canada. Within its boundaries are reproduced all the varied climates of the Dominion, and almost every natural feature, while there are some local varieties of climate and landscape that cannot be found elsewhere. Its lofty snow-capped mountains, lovely valleys, pretty lakes and much indented coast combine to make it most attractive to tourists, and its natural resources offer great inducements to capitalists, while for ordinary settlers with little or no capital there are endless opportunities. Extending from the Western Plain of Canada to the Pacific ocean, and from the United States boundary to the 60th parallel of latitude, it is bounded on the north by the Yukon Territory of Canada. A narrow strip of northern coast extending as far south as latitude N.  $54^{\circ} 57'$  belongs to Alaska, and is known as the Alaskan Panhandle. The area of British Columbia is 355,855 square miles. Thirty-seven thousand square miles might be taken away from it and it would still be larger than the three Pacific coast states of the American Union—California, Oregon and Washington. The Yukon Territory belongs to the same geographical division of Canada as British Columbia. Combined they have an area of 562,931 square miles, and are equal to the combined

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

area of the United Kingdom, Holland, Belgium, Switzerland, Germany, Denmark and Sweden, having together a population of over 135,000,000. There are a great number of islands off the coast of British Columbia included in the province. \*The most important are Vancouver island and the Queen Charlotte islands. Vancouver island extends from latitude N.  $48^{\circ} 20'$  to  $51^{\circ}$  N. It is 285 miles long and from 40 to 80 miles wide, having an area of about 20,000 square miles. Queen Charlotte islands extend from latitude N.  $51^{\circ} 55'$  to latitude N.  $54^{\circ} 8'$ ; having an area of 3,780 square miles. Texada, Princess Royal, Pitt, Banks, Porcher, Goschen, McCauley, Hunter, Aristazable and Hawkesbury islands are of respectable size, and there are many others. The combined area of all the British Columbia islands would be great enough to make an important province even if there were no mainland. Vancouver island alone is more than nine times as large as the province of Prince Edward Island, and more than sixteen times as large as the state of Rhode Island.

### THE LAND OF WATERWAYS.

Anyone looking at the map of Canada must be impressed with the extraordinary natural facilities for water communication. The Dominion might appropriately be called the land of waterways. The Maritime Provinces are almost surrounded by deep water and their coasts are indented with a great number of fine harbours. In New Brunswick great navigable rivers connect the interior with the sea. The St. Lawrence river and the Great Lakes give communication in summer between the sea and the central provinces, while the West can be reached by way of Hudson strait and the vast interior waters of Hudson bay, although navigation of the strait is obstructed by floating ice for the greater part of the year. There are great lakes and rivers in the West which afford means of internal communication in summer for a vast area of country, while British Columbia has also a number of navigable rivers, and its extensive coast abounds in great harbours. A great part of the Arctic coast is usually obstructed by ice, but there is reason to believe that communication could be maintained between the mouth of the Mackenzie river and the Pacific ocean by way of Behring strait for a considerable portion of the year. Navigation on the interior waterways is obstructed in many places by waterfalls, but short canals overcome the difficulty, and the waterfalls afford electric power for lighting, traction and manufacturing purposes. Canada already has an extensive system of canals, and others are projected. Nature did much in providing waterways and waterfalls, but left to the Canadian people the task of connecting the waterways and developing water powers.

In both Quebec and Ontario the land slopes up gradually from the north shore of the river St. Lawrence and the Great Lakes to the elevation known as the Height of Land, which forms the watershed between the rivers flowing into James bay and Hudson bay and those that empty into the St. Lawrence system. One of the most notable

## WATER-POWERS.

features of Canada is its system of river reservoirs in the form of lakes, and this is strikingly exemplified in the Great Lakes, which form the southern boundary of the province of Ontario and have their outlet in the St. Lawrence river. Nearly all the rivers tributary to the St. Lawrence system repeat the same system of reservoirs on a smaller scale. North of the Height of Land also the rivers nearly all have their lake reservoirs, and the rivers of the Western Plain store their waters in this way. Some of the mountain rivers of British Columbia have the same characteristic, and illustrations can be found in the Maritime Provinces. Thus there are almost innumerable lakes scattered all over Canada. These bodies of water have a moderating influence upon the climate.

## WATER-POWERS.

A complete enumeration of the water-powers of Canada has never been made, but the Dominion Water-Power Branch of the Department of the Interior and the Dominion Conservation Commission have issued a number of valuable reports which, while not all-embracing, give an approximate estimate of the water-power resources. A great deal of valuable information is also obtainable from the annual reports of the Hydro-Electric Power Commission of the Province of Ontario, and from the reports of the International Joint Commission which represents the interests of Canada and the United States in the water-ways and water-powers along the frontier.

In many cases the estimates are very exact, but in some cases they are only approximate. Care has been taken in estimating to take into consideration only the minimum flow of water. In many cases the minimum flow of water is for a very brief period of the year, and for nearly the whole year much greater power is available; so that a statement of the minimum power underestimates the real power possibilities; but it is considered best in this article to accept minimum calculations rather than risk exaggeration. In some cases the storage conditions may be greatly improved and the discharge controlled during the period of high water. For instance, the power possibilities of the slope between the Height of Land and James bay, in the province of Ontario, are estimated at 400,000 H.-P., but it is calculated that under discharge control over 2,000,000 H.-P. could be developed on the James bay slope. In the statement of the power possibilities of the Winnipeg river system the minimum power available under natural conditions of water-flow is estimated to be 280,300 H.-P. in Manitoba, and 203,838 H.-P. in Ontario, a total of 484,138 H.-P. at the lowest stage of the water-flow; but it is calculated that if the discharge of water were controlled by dams at Lake of the Woods, Rainy lake, lake Seul and other lakes along this river system this could be increased to nearly 1,000,000 H.-P. The power estimates for the Ottawa river are based on present conditions. If the Ottawa and Georgian Bay Canal project is carried out the power conditions will be completely changed, and many new water-powers will be created.



## NATURAL RESOURCES OF THE DOMINION OF CANADA.

Owing to the wonderful system of lake reservoirs the variations of water-flow on the Niagara river and the St. Lawrence river are remarkably small. They are believed to be less than on any other river system in the world. Referring to this natural regulation of water-flow, the International Waterways Commissioners in their report for the year 1910 said: "No work of man ever approached or ever will approach this perfection of regulation."

As might be expected, more exact information is obtainable regarding the large water-powers than about the small water-powers. In the older settled parts of the eastern provinces most of the small water-powers were utilized from the earliest days of settlement to run saw



FIG. 1. CHAUDIÈRE FALLS, CHAUDIÈRE RIVER, PROVINCE OF QUEBEC.

mills, grist mills and woollen factories. The methods adopted for the utilization of the water-powers were primitive, and in many cases little or no alteration has been made. The estimates regarding most of these small water-powers are based on the development under such conditions. It is probable that, in the future, modern engineering skill will be employed in reconstruction work at some of these small water-powers, and that the power developed will be considerably increased. On the other hand at some of these small water-powers the full power already developed is not available at lowest water, and in some cases no power at all is available at certain seasons of the year. But the little water-powers form a very small proportion of the total.

## WATER-POWERS.

In a statement issued by the Dominion Water-Power Branch, in 1915, the developed power was stated to be 1,712,193 twenty-four hour H.-P., distributed as follows:

Province.	H.-P. Developed.	Province.	H.-P. Developed.
Nova Scotia.....	21,412	Saskatchewan.....	45
New Brunswick.....	13,390	Alberta.....	33,305
Prince Edward Island.....	500	British Columbia.....	265,345
Quebec.....	520,000	Yukon.....	12,000
Ontario.....	789,466		
Manitoba.....	56,730	<b>Total.....</b>	<b>1,712,193</b>

The same statement estimated that, within areas that may reasonably be expected to be populated in the near future, there were water-power possibilities aggregating 17,764,000 twenty-four hour H.-P.; that is, more than ten times as much as was developed in 1915. If 80 p.c. of this possible power were developed and used constantly twenty-four hours daily, it would be equivalent to 341,068,000 H.-P. daily. At certain hours of the night very little power is used, and there will occasionally be loss from stoppages during ordinary working hours; but there is reason to expect great developments in hydro-electric chemical and metallurgical industries that will use power all night. If, on the average, the power were used only twelve hours per day for 300 days in the year, it would be equivalent to over 51,000,000,000 H.-P. It will be interesting to consider what amount of coal would be required to produce this amount of power with steam plants. The amount of bituminous coal required to produce one H.P. for one hour depends upon the character of the plant and the efficiency of operation. Competent authorities have expressed the opinion that six pounds would be a fair average, although at large well-equipped and economically operated plants the average would not exceed four pounds, and in some cases the quantity is a great deal less than four pounds, while in other cases it is eight pounds and even higher. Accepting six pounds of coal as the average requirement it would take over 153,000,000 tons of coal, or nearly six times the quantity of coal now consumed in Canada for all purposes, including coal produced in the country and imported coal.

In any review of the water-powers of Canada, the Niagara power demands first attention. The amount of water that can be diverted for power on the Canadian and American sides of the Niagara river above the falls has been settled by an international agreement which takes into consideration the fact that more water passes over the Canadian falls than over the American falls, and also makes allowance for the diversion of 10,000 cubic feet of water from the international lakes by the Chicago drainage canal. This agreement is intended to preserve the scenic beauty of the Niagara waterfall and protect navigation interests allowing reasonable use of the water for power purposes. It provides that 36,000 cubic feet of water per second above the fall may be diverted for power purposes on the Canadian side and 20,000 cubic

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

feet on the American side. Investigations made by the United States Government at existing power plants at Niagara Falls show that it takes about 0.075 of a cubic foot of water per second actually to develop one H.-P. per hour. On this basis 36,000 cubic feet of water per second would yield 480,000 H.-P. A yield of 450,000 H.-P. may be accepted as a minimum.

The International Waterways Commission has reported that 40,000 cubic feet of water per second can be diverted for power purposes at the rapids below the falls without injury to the scenic beauty of the rapids, and if this were divided equally between Canada and the United States it has been estimated that 215,000 H.-P. could be produced on the Canadian side, but it might be somewhat less. The conditions regarding head of water below the falls being different from those above the falls, an estimate cannot be made on the same basis. However, a minimum of 150,000 H.-P. below the falls is probably an inside estimate. We may therefore assume that 600,000 H.-P. can be produced above and below the falls on the Canadian side. However, as the Canadian Government permits the exportation to the United States of a portion of the power generated on the Canadian side, the amount of power available for Canadian home consumption is somewhat less. On the other hand, part of the power produced on the United States side of the upper St. Lawrence river may be exported to Canada. Recently a proposal has been made in the United States that a great dam should be constructed across the Niagara river below the falls, creating a new waterfall. It is stated that in this way two million H.-P. could be generated and that capital will be available for the enterprise if the Governments of Canada and the United States consent.

The available water-powers of Ontario and Quebec for which estimates have been made are distributed as follows:

	Approximate minimum 24-hour H.-P. available.
Niagara falls and rapids.....	600,000
DeCew falls.....	50,000
Welland river and canal developed.....	8,830
St. Lawrence canals in Ontario developed.....	8,263
Rapids of St. Lawrence river in Ontario.....	1,028,000
Ontario tributaries of the St. Lawrence.....	1,565
Tributaries of lake Ontario, including Trent Valley powers.....	102,062
Tributaries of lake Erie and lake St. Clair.....	7,873
Tributaries of lake Huron.....	8,112
Tributaries of Georgian bay on the south and west.....	43,828
Tributaries of north side Georgian bay and lake Huron.....	92,006
Sault Ste. Marie.....	98,200
Nipigon river and tributaries.....	79,340
Kaministiquia river.....	31,265
Other tributaries of lake Superior.....	62,532
Winnipeg and English river system in Ontario.....	203,838
James bay slope under natural flow.....	800,000
Ontario tributaries of the Ottawa river.....	87,920
Ottawa river from its mouth to lake Timiskaming.....	422,162
Quebec tributaries of the Ottawa.....	433,490



## WATER-POWERS.

	Approximate minimum 24-hour H.-P. available.
St. Lawrence river in Quebec, above Montreal, including Lachine, Coteau, Cedar and Cascades rapids and Beauharnois canal.....	1,388,135
South of St. Lawrence below Lachine rapids and above Chaudière river.....	61,430
South of St. Lawrence from Chaudière river to Rivière du Loup.....	10,260
South of St. Lawrence below Rivière du Loup.....	53,260
North side St. Lawrence between Ottawa river and St. Maurice river.	21,842
St. Maurice river basin.....	358,450
North shore of St. Lawrence between St. Maurice and Saguenay rivers, Saguenay River basin allowing about 60 p.c. of approximate estimate of 1,003,760 H.-P.....	30,736
North side of St. Lawrence, below Saguenay, including Hamilton river, allowing about 60 p.c. of approximate estimate of 1,229,540 H.-P.	602,000
James bay slope in Quebec.....	737,000
	971,500
Total.....	8,403,899

NOTE.—As doubt is expressed in the Conservation Commission Report regarding estimates for some of the water-powers of the Saguenay river basin and rivers below the Saguenay, especially the Hamilton river, only 60 p.c. of the estimates is allowed in the above tables.

Thus Ontario and Quebec have available approximately 8,400,000 twenty-four-hour H.-P., and by controlling the discharge of waters on rivers where the difference between high and low water is great this could be enormously increased. Some allowance should be made for Niagara power exported to the United States, but it may be safely said that Ontario and Quebec have available for home consumption, when developed, a minimum of 8,200,000 twenty-four hour H.-P.

All parts of the Maritime Provinces are so near to the great coal fields of Nova Scotia that water-power is not a matter of such great importance to them as it is to some of the other provinces.

New Brunswick and Nova Scotia have been estimated to have 385,307 twenty-four hour H.-P. available for eight months of the year. There is no estimate of the amount of power available for the remaining four months in those provinces. In some cases there would be very little power available for those months.

In Nova Scotia there are no large rivers or large lakes, but there are many small rivers with numerous small waterfalls, and there are a number of small lakes which serve as reservoirs. The natural storage facilities could be improved easily in many cases. The rainfall of this province is heavy. Thus, while there are no great water-powers, there are many small ones. The rivers of New Brunswick are larger and there are greater water-powers than in Nova Scotia, but there are not so many of them.

In view of the fact that some of the small water-powers can be utilized for only eight months of the year it should be noted that at such water-powers it is customary to have a supplementary steam plant which can be utilized for the production of power when water-power is not available.

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

The water-powers of Prince Edward Island are hardly worthy of mention, although there are a few small water-powers on the little rivers at which, during certain seasons of the year, from five to fifty H.-P. is developed.

The water-powers of New Brunswick and Nova Scotia for which approximate estimates have been made are distributed as follows:

	Approximate minimum 24-hour H.-P. for 8 months.
Three water-powers on St. John river, in New Brunswick.....	162,000
Thirteen water-powers on St. Croix river, in New Brunswick.....	35,380
Six water-powers on Nipisquit river, in New Brunswick.....	13,795
One water-power on the Aroostook river in New Brunswick.....	13,000
Three water-powers on Tobique river, in New Brunswick.....	7,600
Two water-powers on southwest branch Miramichi river, in New Brunswick.....	7,000
One hundred and thirteen water-powers on other New Brunswick rivers.....	54,363
Twelve water-powers on Liverpool river, in Nova Scotia.....	14,995
Eleven water-powers on the Lahave river, in Nova Scotia.....	8,430
Nine water-powers on Weymouth river, in Nova Scotia.....	6,160
Ten water-powers on Port Medway river, in Nova Scotia.....	6,120
One hundred and sixty-nine small water-powers on other Nova Scotia rivers.....	56,884

There are a number of small water-powers for which no estimate has been made.

In Manitoba the water-powers that have been most carefully estimated are those on the Winnipeg river, about 78 miles from the city of Winnipeg. Under natural flow, the minimum power available is 280,300 H.-P., of which 45,700 H.-P. has already been developed by the city of Winnipeg and 26,500 H.-P. by the Winnipeg Electric Railway. It is estimated that with control of the discharge of water the power available would be over 509,900 H.-P.

On the Pigeon river, Berens river, Poplar river and Big Black river, flowing into the southeast side of lake Winnipeg, probably within transmission distance of the city of Winnipeg, there are water-powers, aggregating 72,225 H.-P. twenty-four hours daily, eight months of the year. No estimate has been made for the remaining four months.

Other water-powers within transmission distance of the city of Winnipeg are those on the Mossy, Dauphin, Waterhen and Fairford rivers, which make connections between lake Dauphin, lake Manitoba, lake Winnipegosis and lake Winnipeg. Theoretically these rivers would furnish a minimum of 27,860 H.-P. twenty-four hours daily throughout the year, and it may be assumed that a minimum of at least 65 p.c. of that could be developed. With control of the discharge of waters this could be considerably increased. The water-power at the Grand falls of the Saskatchewan may also be regarded as within transmission distance of the city of Winnipeg. The estimate from May to November is a minimum of 45,000 H.-P. for twenty-four hours daily, and, while no estimate for the whole year has been made, the power available throughout the year would probably not be much less.

## WATER-POWERS.

There are small water-powers available on the Assiniboine, Little Saskatchewan and other small rivers for at least seven months of the year.

The water-powers of the Nelson and Hayes rivers are too far from the present settlements for transmission of electric energy, but the construction of the Hudson Bay Railway from Pas to Port Nelson will probably bring about the settlement of the Nelson river valley. Estimates have been made regarding twenty-five water-powers on the Nelson river aggregating a minimum of 2,930,800 H.-P. for twenty-four hours daily and twenty water-powers on the Hayes river aggregating 28,460 H.-P. While the estimates are only for seven months it is believed that the minimum for the year would be very little less than this for the Nelson river.

As Manitoba is even farther from the sources of coal supply than Ontario the abundance of water-power is of very great importance.

On the main Saskatchewan river in the province of Saskatchewan it is estimated that about 24,000 H.-P. daily for twenty-four hours would be available for seven months of the year, on the South Saskatchewan 1,700 H.-P. and on the North Saskatchewan 10,000 H.-P. At the Rocky rapid of the North Saskatchewan in Alberta above Edmonton it is estimated that 28,000 H.-P. could be developed by controlling the discharge of waters.

In southern Alberta it is estimated that 60,000 H.-P. can be obtained from the Bow river, within fifty miles of Calgary, by controlling the discharge of waters. The Calgary Power Company has already developed 19,500 H.-P. at the Horseshoe fall of the Bow river and 12,000 H.-P. at the Kananaskis fall. There are also small water-powers available on the Elbow river, McLeod river, Belly river and other small rivers in southern Alberta.

The information regarding water-powers in Manitoba, Saskatchewan and Alberta north of the Nelson and Saskatchewan river systems is not complete, but there are known to be many important water-powers, and the aggregate is immense.

British Columbia is splendidly endowed with water-powers, and, although the province has immense quantities of coal, rapid progress is being made in hydro-electric development. At many points to which the cost of transporting coal over mountain roads is excessive hydro-electric power can be cheaply transmitted, and even in districts close to coal mines the competition of hydro-electric power will regulate the price of coal.

Mr. G. R. G. Conway, Consulting Engineer of the British Columbia Electric Railway, says, in his monograph on the water-powers of British Columbia: "Within reasonable distance of the cities of Vancouver and Victoria there are possibilities of the economic development of water-powers aggregating 750,000 H.-P. These water-powers are all situated within an area of 20,000 square miles. Outside of this area a rough estimate of the water-power possibilities of the province would bring this figure up to 3,000,000 H.-P."



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## CLIMATE AND FARM PRODUCTS.

There is great diversity in the farm products of the different parts of Canada owing to variations in climatic conditions. There are districts of Ontario and British Columbia where delicate fruits such as peaches of the highest quality and the finer varieties of grapes grow to perfection, while there are extensive areas of fertile land in the Western Plain which, although producing the highest grades of hard wheat, will not grow even hardy apples. The wheat grown in the eastern provinces is of quite different character from that grown on the western prairies. Thus, while the hard wheat flour of the West makes bread of superior quality, it cannot be used for making biscuits, shredded wheat and some other breakfast foods. The biscuit manufacturers of Winnipeg have to send to Ontario or Quebec for flour made from soft wheat. The conditions affecting the production of food products can best be understood by describing the climate and farm productions of each of the great divisions of Canada separately.

The Maritime Provinces of Canada come under the influence of both the Gulf Stream and the Arctic current. Their latitude being about the same as the countries of southern Europe the climate is temperate, although somewhat colder in the winter and spring than the corresponding latitudes of Europe. A branch of the Arctic current comes through Belle Isle strait between Labrador and Newfoundland, lowering the temperature of the Gulf of St. Lawrence. In the spring icebergs come through Belle Isle strait and delay the summer. Eminent engineers have said that it would not be a difficult undertaking to close up Belle Isle strait at its narrowest point, completely shutting out the Arctic current from the Gulf of St. Lawrence, and that the work could be accomplished at less cost than the Panama canal. They argued that the climate of the western coast of Newfoundland, the Maritime Provinces, and the lower part of Quebec province would be transformed, that the St. Lawrence would be navigable throughout the year as far up as Quebec city, and that the tunnel between Prince Edward Island and the mainland, so long advocated by the islanders, would be unnecessary, as there would be no winter ice in Northumberland strait.

Nova Scotia, New Brunswick and Prince Edward Island all have hills and valleys. In Prince Edward Island the highest elevation is 311 feet. The highest elevations in Nova Scotia are in the highlands of Cape Breton island. At one point in the North Cape district of Cape Breton a height of 1,500 feet is reached, but the hills are not usually high. In New Brunswick there are eighteen hills reaching elevations of 2,000 feet and upwards; Mount Carleton in Northumberland county is 2,630 feet high. But these hills are not representative of the general elevation.

Owing to its almost insular position and perhaps to the influence of the Gulf Stream, which flows not far from its southern extremity, the climate of Nova Scotia is more moderate than that of the neighbouring state of Maine. In Halifax, according to records of the Dominion Meteorological Service for a period of seven years, the average of all temperatures in January and February, the coldest winter months, was twenty-two degrees (F.) above zero. Extreme cold is seldom ex-

## CLIMATE AND FARM PRODUCTS.

perienced in any part of the province, but the northern counties are more exposed to the influence of the Arctic current flowing through Belle Isle than those of the south and along the bay of Fundy. Thus Annapolis township is seven or eight degrees warmer on the average than the counties in Cape Breton and along Northumberland strait, five or six degrees warmer than Halifax and Colchester counties, and three or four degrees warmer than the famed country of Evangeline along the Basin of Minas. Yarmouth, the most southern county, has much milder winters than any other portion of the province, but the summer temperatures are lower than those of the Annapolis valley. In St. John, N.B., the winter temperatures are a little lower than those of Halifax. There is a pronounced difference between the winter climate along the bay of Fundy coast of New Brunswick and that of the interior and northern counties, which are considerably colder. Prince Edward Island, lying in the Gulf of St. Lawrence almost entirely between  $46^{\circ}$  and  $47^{\circ}$  N. latitude, has much the same climate throughout its area, the temperatures being about the same as those of Cape Breton island.

The garden of Nova Scotia is in the Annapolis and Cornwallis valley, a district about eighty miles long and from four to twelve miles wide, protected from the summer fogs of Fundy and the chilling ocean winds by two ranges of hills known as the North and South mountains. The North mountains skirt the south shore of the bay of Fundy from Brier island to the Basin of Minas, terminating in a bold bluff called Cape Blomidon. On the other side of Minas channel the range is continued under the name of the Cobequid mountains, acting as a shield against the cold winds coming from the gulf of St. Lawrence in the spring. The Annapolis valley is famous for its apples, which command the highest prices in the London market. While the climate and soil seem particularly adapted to the production of apples they are also favourable to grapes, pears, plums, cherries, melons and tomatoes, and even peaches are successfully grown. King's county, the scene of Longfellow's "Evangeline," is also a great apple-producing district. Although not quite so warm as Annapolis township it is equally fertile, and the dyked lands are as productive now after centuries of tillage as when they were cultivated by the simple Acadians. At present most of the apples produced in Nova Scotia are grown in Annapolis and King's counties, but the Government of the province is showing by means of model orchards in other counties that apples can be successfully grown in any part of the province where the soil is suitable. Even in Annapolis county there is a large area of land suitable for growing apples not yet occupied by orchards.

All the counties bordering on the Basin of Minas and those lying along Cumberland strait and the gulf are good agricultural districts. Excepting Yarmouth none of the counties along the Atlantic coast are generally well adapted for agriculture, although they contain small tracts of excellent farming lands, and no doubt some of the land now considered unsuitable for cultivation could be made productive under a system of scientific farming. Very little wheat is now raised in Nova Scotia. The chief field crops are oats, hay, buckwheat, potatoes and other vegetables. Wool of superior quality is produced in Nova Scotia,

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

and the natural conditions of the province are very favourable, not only for sheep, but for all kinds of live stock and for dairying.

There are 17,863,266 acres of land in New Brunswick, and it is estimated that about 10,718,000 acres are suitable for agriculture. Large areas in the most fertile sections still belong to the Crown and can be obtained by settlers as free grants. While there is much good farm land in every county the counties having the largest areas of fertile lands are Carleton, Victoria, Madawaska, Restigouche, King's and Queen's. The rivers of New Brunswick run through tracts of low-lying alluvial land of remarkable fertility, sometimes extending for miles back from the river, but generally less than a mile wide. These low lands, which are called intervals, are partly covered with water in the spring. Without dyking and without manure they produce great crops of fine hay every year. When dyked and brought under cultivation they prove to be remarkably fertile. New Brunswick has so many great rivers that the area of intervals is extensive, but these lands are usually attached to upland farms.

Although New Brunswick is well suited to wheat production, the quantity of wheat grown is not large, as the farmers consider it more profitable to grow oats, hay, buckwheat, potatoes and other vegetables. A good deal of attention is now being paid to fruit growing, and very fine apples, pears and plums are produced, while the smaller fruits such as cherries, raspberries, blackberries and blueberries are raised in large quantities. There are no great orchard districts in New Brunswick such as are seen in the Annapolis valley of Nova Scotia; but many of the farmers have small orchards, and expert horticulturists have declared that nearly every part of the province is well suited for apple production. New Brunswick seems to be particularly adapted to dairying on account of the luxuriant pasturage, unfailing supplies of water and nearness to the markets of both Europe and the Eastern States. The report of the commissioners appointed by the Dominion Minister of Agriculture to investigate conditions affecting the sheep industry in Canada referred to New Brunswick as a "country with high, rolling hills and well-watered pastures growing various kinds of short, sweet, natural grass and white clover specially adapted for sheep."

The soil of Prince Edward Island is naturally very fertile, and of the total area of 1,397,991 acres very little is unsuitable for cultivation, but only a little over half the area is actually under cultivation in field crops. Oats, wheat, potatoes and hay are the most important crops, but small quantities of barley, buckwheat, beans and peas are produced. Apples, plums and cherries, currants, gooseberries, raspberries and strawberries are successfully grown, but the majority of the farmers pay little attention to fruit growing.

There are many varieties of climate within the vast area of Quebec province. In Montreal the temperatures average between ten and eleven degrees lower than in Halifax during the coldest winter months, but in the spring and summer the Montreal temperatures are considerably higher than those of Halifax. In Quebec city the greatest degree of cold experienced during the months of December, January, February



## CLIMATE AND FARM PRODUCTS.

and March is between one and two degrees lower than in Montreal. The average of all temperatures during January and February is several degrees higher than in Montreal, but in all the other months the average temperature is several degrees lower than at Montreal, and the season without frost is nearly three weeks shorter. The lake St. John district affords a very good illustration of the fact that climate depends more upon local influences than upon latitude. Although about 100 miles north of Quebec city, its temperatures average several degrees higher and the summer is several weeks longer. There is a large area of good farm land in this district. In the vicinity of lake Timiskaming, on the boundary of Ontario, about 300 miles northwest of Montreal, the climate is about the same as at Quebec city. Explorers report that on the slope towards James bay the climate is better than immediately south of the watershed, and that a great deal of land is suitable for cultivation. As regards the climate, soil and natural resources of Ungava almost nothing is known.



FIG. 2. FARM IN PRINCE EDWARD ISLAND.

The section of Quebec province bordering on the lower St. Lawrence, partly owing to its mountainous character and partly to the influence of the Arctic current flowing through Belle Isle strait, has a rather severe climate and is not generally well suited to agriculture. The mainland, northeast of Anticosti island, is little better than Labrador. Anticosti itself is believed to possess considerable areas of good land. West of that the climate is better and there is a good deal of fertile land in the valleys. The islands in the river west of Anticosti are all fertile. The isle of Orleans, a little below Quebec city, has always been noted for its grapes. The best agricultural region of the province is the fertile valley extending on both sides of the St. Lawrence river from Montreal to Quebec city, and reaching as far east as Kamouraska on the south shore, with an area about the same as that of Holland.

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The greater part of the present population of the province is concentrated in this valley. Throughout the St. Lawrence valley apples, pears, plums and cherries are grown, while grapes are produced in the open air as far west as L'Islet on the south shore of the St. Lawrence, seventy miles northeast of Quebec city. Large quantities of strawberries, currants, gooseberries and other small fruits are produced. It was once a great wheat region, but comparatively little wheat is grown now. Great quantities of oats, hay, clover and potatoes are produced, and a considerable acreage is devoted to barley, buckwheat, rye, Indian corn, peas and beans. A small quantity of flax is grown. Nearly every farmer in Quebec province grows a little tobacco, and there are a few large plantations. Large quantities of tobacco are grown annually in this province. Very small quantities of hops are grown. A large proportion of the farms have groves of sugar-maple trees, and considerable quantities of maple sugar are produced, the sap flowing freely in the early spring when there is frost at night and bright sunshine during the day.

The province of Quebec has achieved marked success in dairying, and there is room for great expansion of this industry. Good grazing land, watered by springs, streams and lakes, abounds almost everywhere from lake St. Francis to the extremity of Gaspé. It is not and never can be a ranch country—the snow lies too deep in winter; but nearness to the markets of Europe, as well as to those of industrial Canada, largely offsets the cost of winter feeding and housing. Dairy farming is now attracting special attention, and in the district between the St. Lawrence river and the United States boundary, commonly known as the Eastern Townships, there are already many fine herds of cattle with some of the best blood in America. Quebec ranks second among the provinces of the Dominion in the production of butter, cheese and condensed milk.

The climate of Ontario varies considerably, according to latitude, elevation and the character of the surrounding waters. That part of the province which is almost surrounded by lakes Ontario, Erie, Huron and Georgian bay, has a more moderate climate than the part of the United States immediately to the south. In Hamilton, at the head of lake Ontario, the average of all temperatures in the coldest winter months is about the same as in Halifax, but the summers are longer and much warmer. At Owen Sound, on Georgian bay, the winter temperatures are between three and four degrees lower than at Hamilton, and at Port Arthur, on lake Superior, over eighteen degrees lower. At Moose Factory, on James bay, the temperatures during the coldest winter months average a little less than three degrees lower than those of Port Arthur. The summer temperatures at Moose Factory from the beginning of May until the end of September correspond very closely with those of Edinburgh, Scotland, as shown by the record of fifteen years. Because Hudson strait is blocked with ice in summer it is commonly supposed that any district bordering on Hudson bay must be practically without summers, but when it is remembered that Hudson bay, including James bay, is about 800 miles long, while Hudson strait is about 500 miles long, it can be imagined







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FIG. 3. FRUIT FARM AT GRIMSBY, SOUTHERN ONTARIO.

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that the ice in the far north does not greatly affect the climate of the south shore of James bay. The southern end of James bay is as far from Hudson strait as the north shore of lake Ontario is from the gulf of Mexico. The thermometer never registers quite as low in winter at Moose Factory as it does in Winnipeg, Manitoba, or in the well-settled American states of Minnesota, Dakota and Montana. Owing to the altitude the coldest part of the province of Ontario is along the Height of Land. As the country slopes northward from the Height of Land to James bay, the difference in latitude is more than offset by the lower elevation. It is believed also that the many small lakes between the Height of Land and James bay tend to moderate the climate.



FIG. 4. PICKING PEACHES IN SOUTHERN ONTARIO.

The greater part of Old Ontario is fertile, although in some of the southeastern counties, as well as in the counties of Muskoka, Parry Sound and Nipissing, there are considerable areas more suitable for forest reservations than for farm lands. Apples and certain varieties of grapes can be grown successfully in any part of Old Ontario, but the fruit garden of the province is the southwestern peninsula, lying between lake Erie and Georgian bay, and bounded on the west by the Detroit river, lake St. Clair and lake Huron. This district rivals the Annapolis valley of Nova Scotia in the production of apples, while peaches, pears, plums and the finest varieties of grapes grow to perfection in the southern counties. Peaches and grapes are most extensively grown in the

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

district between Hamilton and Niagara, where there are many thousands of acres of peach orchards. All the counties bordering on lake Erie are particularly adapted to the production of peaches and grapes. Tobacco of fine quality is grown in these counties. The fruit-growing areas are continually extending in the southern counties of Ontario, lands formerly devoted to grain growing and general farming being planted with orchards. Ontario farmers at one time devoted their lands almost entirely to grain growing, and large quantities of wheat, oats and barley are still produced, but grain growing has to a large extent given place to fruit growing and dairy farming. Ontario leads the world in the production of cheese.

The country stretching from lake Nipissing to the lake of the Woods, and extending from the northern shores of Georgian bay, lake Huron and lake Superior to the Height of Land, is known as the Algoma district, and has often been described by superficial observers as a worthless rocky region, which must always prove an insurmountable barrier between central Canada and the Western Plain. That it looks rocky, whether viewed from a steamship or a railway car, cannot be denied, but throughout this region are numerous little fertile valleys, sheltered from the rough winds by the much abused rocky hills, and watered by swift-flowing rivers and pretty lakes. It must be admitted that these valleys, being small, there is not much good land in any one spot, but altogether there are probably millions of acres available for cultivation between Nipissing and Port Arthur, although the greater part of this area will never be anything more than a lumbering and mining region. The fact that most of the rivers of the province have their sources on the slopes of the Height of Land makes it desirable that it should be maintained as a forest reservation, and if the forests are properly protected they may be made to yield a large revenue to the province. In the vicinity of Port Arthur and along the Rainy river, and about the lake of the Woods, there are large tracts of fertile land. But the wealth of the Algoma district is in the rocks rather than in the soil, for there is reason to believe that it is one of the richest mineral districts of the world.

The country north of the Height of Land is almost a complete wilderness. The Canadian Transcontinental railway and the Canadian Northern railway have recently been constructed through it, but the settlement of the country has hardly begun.

Exploring parties sent out by the Ontario Government have made favourable reports. A summary of these reports issued by the Provincial Government says:

It has been established beyond controversy that in the eastern part of the territory north of the Height of Land there is an immense area of excellent agricultural land, apparently equal in fertility to any in older Ontario, with an equable and temperate climate and an abundance of wood and water. The great clay belt comprises an area of at least 24,500 square miles, or 15,680,000 acres. This almost unbroken stretch of good farming land is nearly three-quarters as great in extent as the whole settled portion of the province south of Georgian bay, lake Nipissing and the French and Mattawa rivers.



## CLIMATE AND FARM PRODUCTS.

In view of the fact that very low temperatures are reached in the northwestern states of the United States, an impression once prevailed that the Canadian provinces to the north of them must be too cold for successful farming; but the western states are very highly elevated, and this is the reason for the cold climate, as they are not far north. The Canadian Western Plain slopes steadily from the international boundary to the Arctic ocean, and the decreasing altitudes offset the higher latitudes.

The vast Western Plain has three great natural subdivisions, the Prairies, the Forest region and the "Barren Lands." The Prairie region lies between the United States boundary and the 54th parallel of latitude, sloping gradually eastward from an elevation of over 3,500 feet in the foothills of the Rocky mountains to an elevation of about 800 feet in the valley of the Red river. There is also a steady slope northward, but in the prairie country the eastward slope is a little more pronounced and directs the course of the rivers toward Hudson bay. Throughout the Prairie region there are trees in many spots along the banks of rivers and on the low hills that rise from the plains in some places, but the prairie country as a whole is almost treeless except in the northern part, where there is a park-like country having many groves of trees with wide, open spaces between them. This park country may be regarded as the borderland between the Prairie and the Forest region. The Forest region includes the districts lying within the basins of the Churchill and Mackenzie river and lake systems and the country extending east and northeast of lake Winnipeg to Hudson bay. Just as in the Prairie region there are small tree-covered areas, so in the Forest region there are small prairies. The district known as the "Barren Lands" lies east of the watershed of rivers flowing into the Mackenzie system of lakes and rivers and extends from about the 60th parallel of latitude to the Arctic ocean.

Throughout the three Prairie Provinces the sky is usually bright and the atmosphere dry, clear and pure. The dryness of the atmosphere makes both heat and cold more endurable. The cold is often extreme in winter, but the degree of cold is not realized until one examines the thermometer. The temperatures do not vary as much in different sections of these provinces as might be expected in a territory covering an area of 758,817 square miles. While the elevation increases as one moves westward from the Red river toward the mountains, the western country is farther from the influence of cold winds blowing from the ice in the north of the Hudson bay and Hudson strait in the winter and spring, and this offsets the higher elevation. In Alberta the influence of the warm Chinook breezes coming through passes of the Rocky mountains is often felt. These warm winter winds melt the snow in a marvelously short time, so that it seldom lies long on the ground, and cattle are able to feed on the prairie all winter. Comparing Manitoba and Alberta, it may be said that the winters are a little colder and steadier in Manitoba and the summers a little warmer, but the difference is not great. Saskatchewan has very much the same climate as Manitoba, and in both of these provinces the winters are less changeable than in Alberta. The large lakes of Manitoba have a moderating influence on the climate.

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Saskatchewan and Alberta also have lakes, but most of them lie to the north of the Saskatchewan river, while in Manitoba the lakes extend far south in the province. It might be supposed that in provinces extending from 49° N. latitude to 60° N. the northern sections would be much colder than the southern, but the elevation decreases so steadily from south to north that the higher latitude is offset by the lower elevation, and there is very little difference in climate. Thus, while the elevation is 3,427 feet at Calgary, in southern Alberta, it is only 600 feet at the extreme north of the province of Alberta. Edmonton, in latitude N. 53° 33', is 1,269 feet lower than Calgary, in latitude N. 51° 2'; Dunvegan, on the Peace river, in latitude 56° N., is 2,099 feet lower than Calgary; while Fort Vermilion, on the Peace river, in latitude 58° 24', is 2,454 feet lower than Calgary; and Fort Smith, on the Slave river at the northern boundary of the province, over 2,800 feet lower. However, a great part of the Peace river country has a much higher elevation than the river valley, which is not very broad. The great plateau through which the river flows is from 700 to 1,000 feet higher than the level of the river. As we proceed north, beyond the boundary of Alberta into the Northwest Territories, the altitude continues to decrease. A good illustration of the decreasing altitude may be found in the levels of the Mackenzie system of lake reservoirs. Lesser Slave lake has an altitude of 1,890 feet, lake Athabaska an altitude of 690 feet, Great Slave lake an altitude of 520 feet, and Great Bear lake an altitude of 391 feet.

Professor John Macoun, who made a careful study of this north-western country, said that the spring begins in the Peace river district and advances southeast at the rate of 250 miles per day, and that winter begins in Manitoba and goes northwestward at the same rate. Many reasons have been assigned for the warm summers in the far northwest. The elevation of the country is thousands of feet lower than at the United States boundary. The British Columbia mountains are much lower at the north, and there are many passes in them through which come warm Chinook breezes from the Pacific, while the many lakes in the north favourably affect the temperature, and in the summer there is almost no night there. While there are long days in summer there are long nights in midwinter, and temperatures sometimes register very low. Yet even in the winter there is very little darkness, for when the moon is not shining the brilliant northern lights usually make the night bright.

There is land enough in the great hard wheat belt of the prairie country west of the Red river and lake Winnipeg to produce a very large proportion of the world's present demand. Nearly the whole area of these vast prairies is suitable for wheat growing. Scientific agriculturists say that this is the largest continuous expanse of rich soil on the American continent. In addition to a rich top soil there is a deep subsoil containing great stores of nitrogen, phosphoric acid and potash, so that without the use of fertilizers many crops can be taken off the land in succession.

The three Prairie Provinces combined have a land area of over 466,000,000 acres. In 1915 there were 13,433,600 acres in wheat, 6,349,600 acres in oats, 1,160,300 acres in barley and 1,377,430 acres in rye, flax,

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mixed grains, peas, hay and clover, alfalfa, fodder corn, potatoes, turnips and other roots. The three most important cereal crops amounted to 393,391,000 bushels of wheat, 338,422,000 bushels of oats and 42,685,000 bushels of barley. Suppose that ten times the acreage of 1915 were devoted to each of the crops grown that year it would require 223,209,300 acres, less than half the total area of the three provinces, and if the yield per acre were the same as in 1915 we would have 3,933,910,000 bushels of wheat, 3,384,220,000 bushels of oats and 426,850,000 bushels of barley. In September 1915 the International Institute of Agriculture estimated the total production of wheat, oats, and barley for the year 1914, in countries representing all but seven p.c. of the world's total production, to be as follows: Wheat 3,685,860,000 bushels, oats 3,960,800,000 bushels, barley 1,410,710,000 bushels.<sup>1</sup> The production in 1914 was only slightly affected by the war, which began at the end of July. Thus less than half the area of the three Prairie Provinces, if put under cultivation, could produce in a good year more than as much wheat, nearly as much oats, and about one-third as much barley, as the whole world was estimated to produce in the year 1914. However, it is probable that when half the area of these provinces is under cultivation, mixed farming will be more general; so that the production of grain may be less than this estimate, while vast quantities of meats, cheese, butter and eggs will be produced. The climate is not favourable to fruit trees, although, with great care, certain hardy varieties of apples can be produced in some sections. There are wild plums in Manitoba; a number of the trees were planted on the Dominion Experimental Farm in Brandon some years ago, and there is now a fine orchard. The plums, which grow abundantly, are small but of fine flavour. Black and red currants, raspberries and strawberries grow very successfully.

At one time it was supposed that extensive areas in southern Saskatchewan and Alberta were too arid for farming, and would never be useful except as cattle ranches. Some of these lands have proved to be well adapted to farming even without irrigation, but extensive tracts have been brought under cultivation as a result of irrigation works constructed by the Canadian Pacific Railway Company and other companies. The irrigated land has proved to be as fertile as other sections of the prairie, and prosperous farms have taken the place of cattle ranches.

It will be noted that the far northwest, owing to local influences, is warmer than the far northeast in the same latitude, but the long summer days and the brilliant winter nights are common to both sections. The part of Manitoba northeast of lake Winnipeg is almost without inhabitants excepting hunters and fur traders. There are no farmers, and consequently the agricultural capabilities of the country cannot be judged by actual results, excepting what may be seen in the gardens of Hudson bay posts, where peas, beans, barley, oats, potatoes, turnips, radishes, carrots and cabbages are successfully grown. Black currants, red currants and gooseberries grow wild in great profusion.

<sup>1</sup> The World's Grain Production and Consumption, Census and Statistics Monthly, November, 1915 (Vol. 8, No. 87, p. 290.)



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Wild cherries are often seen. Explorers with scientific knowledge of soils who have examined the country as carefully as possible during hurried trips across its vast expanse have reported that there are great areas of good agricultural lands, and that the country, being well watered and having luxuriant grasses, is well adapted to mixed farming, especially dairying, but that much of the land will require drainage before it can be utilized. It is not probable that much wheat will ever be grown northeast of lake Winnipeg, but if butter, cheese, eggs, meats and vegetables are produced there in large quantities it will be just as advantageous to Canada as if wheat were largely grown.



FIG. 5. PRAIRIE WHEAT FARM NEAR EDMONTON, ALBERTA.

Mr. J. B. Tyrrell, D.L.S., who explored the forest country from Split lake, one of the small reservoirs of the Nelson river, northeast of lake Winnipeg, to the Athabaska river, stated that the greater part of this forest belt would be well suited for agriculture if cleared. He estimated that this belt would average about 800 miles wide from north to south. He said that everywhere in travelling through it there was abundant evidence of rich vegetation, and wherever any kind of agriculture had been attempted in this forest belt it had been successful. The summers were warm and the days long, and, while the winter was very cold, that made no difference from an agricultural point of view, as things do not grow in winter. He thought that anything grown in the prairie country farther south would grow there. Mr. Frank Crean, another explorer, referring to a trip through northwest Saskatchewan in 1908, said: "The first frost registered by my ther-

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mometer was on October 2, when the thermometer fell to 24° F. I was at Methye portage, latitude N. 56° 36', on September 17, and the potato tops were not frozen in the least. The garden was also quite untouched. Nor had I seen any frozen vegetables on the way up. The lakes began to freeze on October 20, but remained open for perhaps two weeks, the weather turning quite mild again." In another report of explorations in the same district the following year, Mr. Crean said: "Lettuce and radishes in fourteen days grow from the seed to a size fit for table use. On Sunday, July 14, I saw some radishes one-and-a-half inches in diameter, fourteen days' growth."

In the settled parts of Ontario and Quebec old settlers say that many districts in which summer frosts are never experienced now were formerly quite liable to summer frosts, and they attribute the change to improved drainage. In districts of southern Manitoba, where the early settlers often lost their crops through summer frosts, no such trouble is now experienced. In these Manitoba districts the lands did not require drainage, but many farmers believe that the general cultivation of the soil, by opening it up to the sun and the air, warms it. They say that the cultivated soil receives and stores heat during the long, hot summer days, and in the cool nights the heat radiates from the soil, thus preventing blighting frosts. There is very little doubt that when the sections of Ontario and Quebec lying between the Height of Land and James bay and on the east and west sides of James bay and the northern half of Manitoba, Saskatchewan and Alberta have been thoroughly drained and brought under cultivation there will be a great improvement in climatic conditions so far as they affect agriculture. This is true also of a large portion of the Northwest Territories which lie to the north of the 60th parallel of latitude. In fact, at some of the Hudson's Bay Company posts in these territories, the clearing, draining and cultivation of land has already had a remarkable effect, and if this is true where very small areas have been brought under cultivation it is conceivable that the cultivation of wide areas might have a very great influence in preventing summer frosts. If well cultivated soil does receive and store the sun's heat it seems reasonable to suppose that in these northern districts where the summer days are so long the general opening of the soil to the sun and the air should have a marked effect.

Mr. William Ogilvie, in a report on the Mackenzie river valley, made an interesting comparison between the hours of sunlight from May 1 to August 31, at Hudson's Bay Company posts on the lower Mackenzie river in the Northwest Territories and at the city of Ottawa. He pointed out that if the hours of sunlight were reduced to days of twenty-four hours at each place, Ottawa would have seventy-five days and five hours of full sunlight; Fort Simpson, eighty-nine days, eleven hours; Fort Good Hope, ninety-nine days, twenty-two hours; and Fort McPherson, one hundred and nine days, twenty-one hours during the four months. "Everywhere the Mackenzie basin is quite as capable, so far as quality of soil is concerned, of supporting an agricultural population as the greater part of the provinces of Ontario and Quebec," wrote Mr. Ogilvie in 1888, before Ontario and Quebec provinces had

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

been extended northward. Mr. Ogilvie also stated that when he was at Wrigley, latitude  $63^{\circ}$  N., on August 15, the people were gathering blueberries, then fully ripe and as large and well flavoured as they are in Old Ontario. Ripe strawberries were found on August 9, ninety miles below this, and raspberries soon afterward. Above Fort Wrigley wild gooseberries and both red and black currants were found in abundance, some of the small islands being literally covered with the bushes. The gooseberries were large and well flavoured and the currants compared favourably with the same fruit as cultivated in the vicinity of Ottawa, the black currants being especially large and mellow. He thought this district would compare favourably with Finland, having a population of 2,000,000, or the Russian province of Vologda, having a population of 1,600,000, both in about the same latitude and with similar climatic conditions.

In the region known as the "Barren Lands," lying between the Mackenzie river basin and Hudson bay, which is exposed to the cold winds blowing off the ice-fields of Davis strait and Hudson strait, the season of vegetation is much shorter than in the same latitude of the Mackenzie river basin. In the short summers these lands are clothed with a wealth of flowers of many hues. At all seasons of the year they furnish sustenance for countless millions of caribou or reindeer, which never have any difficulty in getting at the rich mosses, as the snowfall is light in winter. In his book, "Sport and Travel in the Northland of Canada," Mr. David Hanbury says: "No land can be called barren which bears wild flowers in profusion, numerous heaths, luxuriant grass in places up to the knee, and a variety of mosses and lichens. It is barren only in the sense that it is destitute of trees, hence the name 'Dechin-u-le' (no trees), which is the Indian name for it." Yet it seems to be generally agreed that the greater part of this region is unsuitable for agriculture, because the summer season without frost is too short to mature crops. As regards the winter climate, Mr. J. B. Tyrrell has made a comparison of the winter temperatures of the "Barren Lands" with those of northern Siberia, and has arrived at the conclusion that no section of these lands has winters as cold as some sections of Siberia that are now inhabited. While unsuitable for agriculture it will be shown in the sections of this article devoted to Wild Animals, Minerals and Fisheries that there are natural resources that might furnish a livelihood to a considerable population.

The climate of all the British Columbia islands and the coast lands is greatly affected by the warm water of the Japan current and the winds that blow off it; so that the winters are very mild and moist. Snow seldom falls, and when it does come never stays long. Soft, warm, moisture-laden winds also blow up the long inlets of the sea, which extend many miles inland and along the river valleys, losing their moisture as they go inland, but retaining sufficient heat to moderate greatly the climate of the central and northern plateaus. The most northern islands and the mainland coast opposite them have a milder climate than Scotland, while the climate of the southern mainland coast and Vancouver island resembles that of the southwestern counties of England. The rainfall is heavy all along the coast. The plateau



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between the Gold and Coast mountain ranges has about the same annual temperatures as the coast in the same latitudes, but the extremes of heat and cold are greater, while the climate is very dry. In the higher plateau between the Gold range and the Rockies the climate is colder, approximating to that on the eastern slope of the Rockies. In some parts of this plateau rain falls almost continuously in summer, and the snowfall in winter is very heavy, while in other sections of the same plateau it is comparatively dry. For example, the upper valley of the Columbia near the bend has a very great rainfall, but in the vicinity of the Columbia lakes the rainfall decreases, and the upper Kootenay valley in the same plateau has a dry climate. British Columbia furnishes many examples of the fact that altitude has as much effect upon climate as latitude. Above an elevation of 6,000 feet snow falls every month of the year, so that the high peaks are always capped with snow, and magnificent glaciers can be seen at various points along the transcontinental railway lines.

Owing to the mountainous character of the country the area of agricultural land is small in proportion to the size of the province, but there are valleys as well as mountains, and even a small proportion of so great a whole is equal to the agricultural area of some important countries. There are millions of acres of arable land, while the area suitable for pasturage is immense.

The area of lands suitable for agriculture is reduced by mountains on the islands as well as on the mainland, but nevertheless there are extensive acreages of good lands in Vancouver island, Queen Charlotte islands and some of the smaller islands. The settlement of these island lands, as well as those of the narrow strip of mainland territory between the Coast range and the seashore and the river valleys near the mainland coast, has been greatly retarded by the cost of clearing, owing to the dense forests and the enormous size of the trees, when undertaken by individual farmers. This work can be done much more cheaply when conducted on a large scale by companies having stumping machinery, and arrangements have been made to deal in this way with some extensive and well located railway lands in Vancouver island after the valuable timber has been taken off. The beautiful farms and rich gardens that may be seen near the city of Victoria on Vancouver island, and along the lower reaches of the Fraser river on the mainland, furnish good examples of the character of these lands when cleared. However, some of the garden lands along the lower Fraser were recovered from the river by dyking. The moist, mild climate of the islands and the coast lands, although most favourable to gardens and small fruits, is not so suitable for the growth of apples and peaches as the dry belt of the interior, where these fruits are grown to perfection in the irrigated lands. The districts in Vancouver island that have been cleared and brought under cultivation bear a remarkable resemblance to the rural districts of England.

The interior valley extending from the United States boundary to the Big Bend of the Columbia river at its junction with the Canoe river, in latitude  $51^{\circ}$  N., which is drained by the Columbia and Kootenay rivers, is now generally recognized as a great fruit country. A bulletin

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issued by the British Columbia Department of Agriculture says of the Columbia-Kootenay valley: "This noble valley contains two-thirds more cultivable lands and much more timber and pasture lands than Switzerland, and in addition possesses a wealth of minerals which is wholly lacking in the Swiss Republic, yet Switzerland supports a population of 3,500,000 and produces annually over 2,000,000 head of live stock, besides large quantities of butter, cheese, grains, fruits and vegetables."



FIG. 6. YOUNG APPLE TREE, VALLEY OF THE SKEENA RIVER, NORTHERN B.C.

The greater part of this valley requires irrigation to produce the best results, but as water is easily obtained from the rivers and lakes and the cups of the neighbouring hills, irrigation is not costly. Remarkable success has been achieved in fruit growing, and the acreage of fruit trees is increasing very rapidly. Fruit grown in this valley has won many gold medals at exhibitions in England, the United States and Canada. Apples, peaches and prunes of the finest quality are now extensively produced, and, while grape growing has not been undertaken to the same extent, it has been proved that the best varieties of grapes can be grown. There are a number of small rivers and lakes in this

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great valley, each having its own small valley with peculiar characteristics. The largest fruit-producing district at the present time is the Okanagan valley. Other districts where the fruit production is rapidly increasing are the Similkameen valley, the Kettle river valley, sometimes known as the "Boundary Country," owing to its nearness to the United States frontier, and the West Kootenay district, which includes the country surrounding the Arrow lakes, Kootenay lake and the South Columbia river. The East Kootenay district, having a higher elevation, is not as favourable to fruit, but the hardier varieties of apples do well.

Exploration parties sent out by the Grand Trunk Pacific Railway Company have reported very favourably on the soil and climate conditions in the districts drained by the upper Fraser river, the Nechako river, Endako river, Ootsa lake and François lake, comparing these



FIG. 7. STARTING A FARM ON LAKE KATHLYN, NORTHERN B.C.

districts to southern Michigan, southern Ontario and western New York in climate, and describing them as possessing large areas of fertile soil. It is stated that the few settlers already in the valleys of the Kitsumgallum, Lakelse and Copper rivers have had great success in growing apples, pears and plums. Of the valley of the Bulkley river, a tributary of the Skeena flowing north between about  $54^{\circ}$  and  $55^{\circ}$  N. latitude, it is stated in the Grand Trunk Pacific report: "The climatic conditions are approximately the same as those of northern New York or eastern Ontario. The country is generally open, or nearly so, and there is a continuous belt of extremely fertile land some fifteen to twenty miles wide extending from Burns lake to Moricetown, a distance of



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approximately eighty miles, the elevation above sea-level being from 1,350 feet to 2,300 feet. The conditions are parallel with those where the finest apples and plums are produced."

It has been noted that in the northern part of the province the mountains of the interior trend westward and join the Coast range; so that there is a broad plateau between the Rocky mountains and the Coast range, a great part of which is believed to be suitable for agriculture. The trees are comparatively small and the forest is not so dense; so that the cost of clearing is not great, and in some parts there are quite extensive prairies. How much of the land is suitable for cultivation is a matter of conjecture, as there has been no settlement and very little careful exploration. Professor John Macoun estimated that there were millions of acres of land in this north country as suitable for wheat growing as the best lands of the great Western Plain.

It is worthy of note that while the farms of the Western Plain are seldom smaller than 160 acres, and often much larger, the farms of British Columbia are nearly all small. Twenty acres is considered a good-sized fruit farm. Thus, when all the agricultural land in the small valleys of southern and central British Columbia is occupied by gardens and fruit farms the farming population will be larger than the areas of similar size in the great Western Plain.

The fertile valleys of British Columbia have the advantage of sublime scenery. There are mountains in sight everywhere, and many beautiful lakes and rivers.

## FOREST WEALTH.

The Forestry Branch of the Department of the Interior estimates that Canada has between 500,000,000 and 600,000,000 acres of forest, and that between 200,000,000 and 300,000,000 acres are covered with timber of merchantable size, including 30,000,000 acres in British Columbia, 100,000,000 acres in Quebec, 70,000,000 acres in Ontario, 11,000,000 acres in Manitoba, Saskatchewan and Alberta, 9,000,000 acres in New Brunswick and 5,000,000 acres in Nova Scotia. With a view to ensuring a future supply of timber, maintaining sources of water supply and protecting wild animals and birds from extermination, 152,833,955 acres of lands have been set aside as permanent forest reserves, including 107,997,513 acres in Quebec province, 14,430,720 acres in Ontario and 2,474,240 acres in British Columbia, under control of the provincial governments, and 27,931,482 acres in the four western provinces under Dominion control. On the eastern slope of the Rocky mountains in Alberta there is a reserve of 13,373,860 acres, which will be of immense value in preserving the sources of many rivers flowing through the great Western Plain.

In Ontario the timber most largely cut into lumber is white pine, with hemlock, red pine, spruce and maple following in order of quantities; in Quebec province spruce leads, with white pine, hemlock, birch and balsam fir following; while in the Maritime Provinces spruce ranks first, with hemlock, white pine, balsam, fir and birch following. In Manitoba, Saskatchewan and Alberta spruce leads, with tamarack and jack pine following. In British Columbia the cut of Douglas fir

## FOREST WEALTH.

exceeds that of all other woods combined. Tamarack, cedar, spruce, yellow pine, hemlock, white pine and balsam fir follow in order of quantities cut. The largest sawmills in Canada are located in British Columbia. In all the provinces, excepting Ontario and British Columbia, the cut of spruce exceeds the cut of all other woods.

The trees growing in the three Maritime Provinces—Prince Edward Island, Nova Scotia and New Brunswick—include white, red and black spruce, white pine, red or Norway pine, hemlock, white cedar, tamarack, yellow birch, sweet birch, paper birch, sugar maple, silver maple, red maple, balsam fir, basswood, jack pine, white elm, beech, white ash, black ash, red oak and scrub oak.

It is estimated that fully two-thirds of the area of Nova Scotia is either covered with forest growth or consists of burned-over forest land more suitable for re-forestation than for any other use. The three woods most largely cut are, in order of quantity, spruce, hemlock and white pine. During the years 1909 and 1910, Prof. Fernow, the forestry expert of Toronto University, and a staff of assistants, made a forest reconnaissance of Nova Scotia at the request of the Provincial Government. Reviewing the conditions in Cape Breton island and the mainland separately, Prof. Fernow estimated that the mainland of Nova Scotia contains approximately 9,000,000,000 feet of coniferous timber at present suitable for sawing, and that, including Cape Breton, the whole province contains nearly 10,000,000,000 feet of such timber. He estimated that, in addition to this saw-timber, coniferous trees on the mainland suitable for pulpwood would yield about 10,000,000 cords of pulpwood and those in Cape Breton island about 14,000,000 cords, a total of about 24,000,000 cords of pulpwood in the province. He made no estimate of the quantity of hardwood suitable for sawing, but the area of the hardwood is given as 330,901 acres on the mainland, and about 195,968 acres in Cape Breton island. However, there are large areas of land covered with young trees that will be large enough for sawing before many years.

At one time New Brunswick was noted for its immense forests of white pine, and the exports of pine timber, pine boards, shingles, staves, masts and spars were very large. Partly as the result of indiscriminate cutting, and partly because of great forest fires, the pine forests have to a large extent disappeared, but the area of the spruce forests has greatly increased, spruce trees having grown up on lands formerly occupied by pine. The annual cut of spruce is now about ten times as great as the cut of pine.

While Prince Edward Island has the same trees as Nova Scotia and New Brunswick, the forest areas are not large.

Estimates regarding the extent of the forest resources of Quebec do not include the newly added territory of Ungava, but it is not considered that the forests of that territory are very extensive. The forestry experts of the Quebec Government estimate that the forests of the old province of Quebec contain 50,000,000,000 feet board measure of white and red pine, 125,000,000,000 feet of spruce and balsam fir, 100,000,000,000 feet of pulpwood, and 35,000,000,000 feet of hardwood,

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birch, maple, etc., 20,000,000,000 feet of cedar, a total of 330,000,000,000 feet board measure.

Among the trees of Quebec province are white, red and black spruce, white pine, red or Norway pine, hemlock, white cedar, tamarack, yellow birch, sweet birch, paper birch, sugar maple, silver maple, red maple, balsam, basswood, jack pine, white elm, rock elm, red elm, beech, aspen poplar, balsam poplar, cottonwood poplar, white ash, black ash, white oak, red oak, black oak, scrub oak. There are small numbers of hickory, chestnut and butternut trees in a few localities of restricted area, but not in commercial quantities.

The province of Ontario extends over so many degrees of latitude that it possesses a great many kinds of trees. In addition to all the trees found in Quebec and the Maritime Provinces, Ontario has, in the Niagara peninsula and in the counties bordering on lake Erie, a number of species that are usually found only in more southern latitudes. In the original forests of southwestern Ontario black walnut and sycamore abounded; there were ten species of oak and six of hickories; white ironwood, willows, the sassafras tree and such flowering trees as the tulip tree, the cucumber tree and the flowering dogwood were found in favoured localities. Very few of these trees remain to-day, and they can hardly be said to exist in commercial quantities, although recent reports made by sawmills to the Forestry Branch of the Department of the Interior show that small quantities of nearly all of them are still sawn.

The late Mr. Aubrey White, for many years Deputy Minister of Lands and Forests in the province of Ontario, stated in a paper read before the Forestry Association in 1904, that the province of Ontario had 20,000 square miles of timber subject to license within the older part of the province south of the Mattawa river, lake Nipissing, French river and Georgian bay, most of these timber limits being along the Ottawa river and its tributaries, the rivers flowing into Georgian bay and lake Huron and the Trent river system. He estimated the quantity of red and white pine still standing on these licensed lands at 7,000,000,000 feet board measure, of which he thought about two-thirds was white pine. He did not estimate the quantities of other kinds of timber, but said there were immense quantities of spruce, hemlock and jack pine. In northern Ontario, between the Height of Land and the Great Lakes, he estimated that there were on unlicensed lands 13,500,000,000 feet of white and red pine, probably two-thirds white pine, besides great quantities of spruce, hemlock and jack pine. North of the Height of Land, he said, there were enormous quantities of pulpwood. He expressed the opinion that in a few years great pulp and paper mills would be erected at almost every point where the National Transcontinental railway crossed a river, and the logs would be floated down the rivers to the mills, which would be run with electric power generated at the numerous waterfalls in the district. The situation has changed very little since then. The annual growth would more than offset the present annual cut of timber if forest fires could be entirely prevented. Vigilant measures are now being taken to protect the forests against fires.







Canada Year Book, 1916-17.

FIG. 8. FOREST SCENE IN BRITISH COLUMBIA. DOUGLAS FIR, 300 TO 400 YEARS OLD.

## FOREST WEALTH.

The forest belt of the Western Plain has often been swept by fire, owing to the carelessness of Indians and traders, and consequently only a small proportion of the trees are very old. It is only in places where trees have escaped the ravages of fire that an idea can be formed of the possibilities of growth. It is the general opinion of explorers that if there had never been any fires the greater part of the forest belt would be covered with good-sized trees. There are enormous quantities of timber large enough for pulpwood or for fuel, but comparatively small quantities large enough for sawmill purposes. The dominating trees are spruce and jack pine, but there are also considerable quantities of tamarack, poplar and birch.

That part of southern Manitoba lying between the Lake of the Woods and lake Winnipeg is largely covered with forests. West of the Red river in southern Manitoba there are several hill districts, locally called "mountains," that were well wooded when settlement of the prairies began, and although a great deal of the timber has been cut and fires have done some damage they still have a considerable quantity of standing timber. They have all been set aside as Government forest reserves. There is also a swamp forest reserve.

In southern Manitoba, in the river valleys, there are a few elm, oak, basswood and white cedar trees of fair size. In southern Alberta, near the British Columbia boundary, the Douglas fir grows well.

Mr. Elihu Stewart, formerly Superintendent of Forestry, testified before a committee of the Dominion Senate that he thought the tree growth extended ten degrees farther north in the Mackenzie river basin than in Labrador. Aspen poplar, white poplar, balm of Gilead and birch grow as far north as Fort McPherson, in latitude  $67^{\circ} 29'$ , the natives at Fort McPherson making their canoes out of birch bark. Even in the delta of the Mackenzie, north of Fort McPherson, the islands are heavily wooded. The birch trees about the delta of the Mackenzie attain a size from twelve to sixteen inches and are used at Fort McPherson in building log houses. Mr. Malcolm McLeod, testifying before a committee of the Dominion Senate, in 1888, said: "As to the wood of that far north I would observe that it is remarkably hard. I have a pair of snowshoes of peculiar shape made right and left of birch for frames, like iron in texture, and though perhaps about 100 years old, perfectly sound."

British Columbia is noted for the enormous size of its trees, the superior quality of its timber and the fact that it has the largest compact area of forests on the North American continent. It has often been stated that British Columbia has over 180,000,000 acres of forests—and this is perhaps not an exaggeration if trees of all sizes are included—but the report of the Royal Commission of Inquiry on Timber and Forestry of British Columbia, published in 1910, stated that only a small proportion of this extensive area was covered with timber of merchantable size. It was estimated that there were in the province from 240,000,000,000 feet to 300,000,000,000 feet of merchantable timber—probably the higher quantity. However, as trees grow rapidly in British Columbia, and the Provincial Government has adopted measures for the protection of the forests, the timber not yet of merchantable size is an asset of great



## NATURAL RESOURCES OF THE DOMINION OF CANADA.

value. It is estimated that the annual growth of merchantable timber is much greater than the annual cut at the present time.

The forests on the islands and along the mainland coast, especially in the south, are very dense. One acre is said to have yielded 300,000 feet of lumber, and the average yield per acre is estimated to be about 45,000 feet. These forests have probably suffered less from fires than those in any other section of North America, owing to the heavy rainfall. This is one reason why so many of the trees are large, although the great size must be attributed chiefly to the fact that the climate and soil are favourable to rapid growth. In some sections of the interior, where the climate is dry, there have been serious forest fires. Even in the southern interior the forests are much less dense than on the coast, and the trees are smaller, while the northern interior is generally sparsely timbered and the trees are comparatively small.

In a country with so many varieties of climate it is manifest that there must be variation in the character of the tree growths. The most important tree of British Columbia is the Douglas fir, which takes its name from an eminent botanist who explored the province in the early years of the last century. This tree is very widely distributed in southern British Columbia and extends as far east as the Bow river in Alberta. It attains its greatest size in Vancouver island, on the mainland coast opposite Vancouver island, and in river valleys near the coast, many of the trees in those districts being of great age and enormous size. The age of a full-grown tree is said to average 500 years, and there are many specimens from 600 to 700 years old. The Douglas fir sometimes towers to a height of 300 feet, with a diameter of fifteen feet, but such trees are exceptional. However, trees 250 feet high and ten feet in diameter are often seen; they commonly reach a height of 180 feet with a diameter of four to five feet, the trunk being straight and clear of branches for upwards of 100 feet. In the interior of the province the trees are not so large. The wood is of great value for structural purposes, while the bark is useful in tanning. Tests made by railway engineers to ascertain the relative value of Douglas fir and oak for the building of railway cars showed that the Douglas fir would withstand a greater strain than the oak.

Next in importance to the Douglas fir is the red cedar, which rivals it in size. It grows in all parts of the province, but the largest trees are found in the coast districts, where the Douglas fir thrives best.

There are four varieties of spruce in British Columbia—white, black, Engelmann and Sitka. The most valuable is the Sitka—(*Picea sitchensis*), which is sometimes called Menzies spruce and sometimes British Columbia spruce. It thrives in the humid atmosphere of the north Pacific coast and the islands. The Engelmann spruce grows extensively in the interior.

Western hemlock grows abundantly along the coast, especially in the north, and in those sections of the interior where the rainfall is heavy. In Queen Charlotte islands and other islands adjacent to the northern coast the Douglas fir, so abundant in Vancouver Island, does not grow, but there are large quantities of red cedar, spruce and hemlock, while the yellow cedar or yellow cypress seems to thrive better





Canada Year Book, 1916-17.

FIG. 9. STRATA OF DOUGLAS FIRM (*Pseudotsuga plicata latifolia*) IN BRITISH COLUMBIA.



## WILD ANIMALS.

in Queen Charlotte islands than in any other part of the province. The yellow cedar resembles the red cedar in general appearance and size. It produces a wood of fine grain with a beautiful sulphur-yellow colour, which is easily worked, takes a high polish and is very durable, but requires to be well seasoned before use to prevent shrinkage.

The British Columbia larch, which is very plentiful in the higher altitudes and in the northern part of the province, has been described as similar in appearance to the eastern balsam, but much larger both in girth and height. It has a fine grain, is tough and durable, stains well and takes a beautiful finish. The wood of the British Columbia Broadleaf maple, owing to its curly appearance when cut, is in demand for panel work. There are many other varieties of trees, some of which produce good woods. Among others of commercial value are the western yellow pine, lodgepole pine, balsam poplar, aspen poplar, black cottonwood poplar, western white pine, red alder, garry oak, paper birch, western birch, mountain fir, amabilis fir and lowland fir. The last two are found chiefly along the coast.

As the finest forests of British Columbia are on the islands and near the coast, while the coast is indented with numerous inlets of the sea extending far inland and receiving the waters of many rivers, the cost of getting out the timber is low and the facilities for shipment abroad are probably unequalled. The forests of the interior are not so accessible for shipments overseas, but there will be a market in the Prairie Provinces for the timber cut by the interior mills.

## WILD ANIMALS.

Hunting was the chief means of livelihood of the North American Indians before the arrival of the white man, and fur trading was the first commercial enterprise of white men in Canada. That the business is still quite important, although wild animals are seldom seen in the settled parts of Canada, is evident from the statistical reports of the Customs Department, which show that during the last fiscal year before the outbreak of the war the exports of furs amounted in value to \$5,569,476, while even in the war year 1916 the exports were valued at \$4,778,337. In addition to the furs exported large quantities are used in Canada. Among the wild animals killed for their skins and furs were beavers, badgers, black, brown, grizzly and white bears, caribou, coyotes, deer, elk, ermine or weasels, black, blue, silver, red, white and cross foxes, grampus, lynx, martens, minks, moose, musk-ox, muskrats, otters, panthers, rabbits, raccoons, skunks, squirrels, fur seals, wolves and wolverines. New Brunswick claims that as a result of game protection laws, moose, caribou and deer have greatly increased in numbers, and that there is more big game to the square mile in that province at the present time than in any other part of North America.

The forest reservations of the Dominion and provincial governments contain many fur-bearing animals. With proper direction and protection they may be made to yield a large revenue.

It has already been noted that the mosses and lichens of the so-called "Barren Lands" of the Northwest Territories furnish sustenance to millions of reindeer or caribou. Ernest Thompson Seton, the

## NATURAL RESOURCES OF THE DOMINION OF CANADA.

well-known naturalist, after a trip through that country, said regarding their numbers: "Cutting in half the estimates of explorers who went before me and making a most conservative estimate, there are not less than thirty millions of these caribou." Mr. J. W. Tyrrell in his book, "Across the Sub-Arctics of Canada," says that the caribou of the Canadian "Barren Lands" is the same as the reindeer of the Laplander. These reindeer range in weight from one hundred to four hundred pounds. Mr. Tyrrell says:

As a source of venison the reindeer cannot be excelled, especially in the autumn season, when it is in prime condition. During September and October the males are rolling fat, and as food their flesh is equal to the finest beef. Of all meats I have ever tasted certainly reindeer tongues take the first place for daintiness and delicacy of flavour. From the skins of the reindeer the natives of the Arctic regions make almost every article of winter clothing. For this purpose it is most admirably suited, both because of its great warmth and its remarkable lightness. Through different methods of tanning and dressing it is made adaptable to a great variety of other uses. Sewing thread, lashing twine and other strong lines are also made from sinew obtained from along the spine of this animal.

As to their numbers, Mr. Tyrrell says:

There were many great bands literally covering the country over wide areas. The valleys and hillsides for miles appeared to be moving masses of reindeer. To estimate their numbers would be impossible. They could only be reckoned in acres or square miles.

Could these animals be tamed or domesticated? It would seem so from the experience of Mr. Tyrrell in going among them with a camera. After describing how his party slaughtered a number of reindeer and obtained a large supply of meat, he said:

Several days were spent in drying the eighteen or twenty carcasses which were preserved, and while this work was progressing my brother and I had ample time to roam over the hills and view and photograph the bands of deer which were still everywhere about me. After the slaughter of the first day we carried no rifles with us, but armed only with a camera walked to and fro through the herd, causing little more alarm than one would by walking through a herd of cattle in a field. The experience was delightful—one never to be forgotten.

If domesticated, they would furnish a livelihood for thousands of people. Great meat-packing factories could be established, and even fresh meat might be shipped out during the short season of Hudson bay navigation. A large number of people might be employed in tanning and dressing the skins, which would find a ready market both in southern Canada and in Europe. Musk-oxen are not so numerous in the "Barren Lands" as reindeer, but there are considerable numbers of them in some sections, especially in those parts not frequented by the Eskimos.

Throughout both the Mackenzie basin and the Barren Lands the numerous lakes and rivers are full of fish which could be used by fur farmers to feed many fur-bearing animals.

There is reason to believe that the raising of fur-bearing animals may in future become an important Canadian industry. As the population increases the home demand for furs will be very large. The old

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method of hunting wild animals will be abandoned and fur-farming will become general. Thus far greater quantities of furs will be produced than formerly, and large numbers of people may find employment in feeding fur-bearing animals and preparing the skins for market.

Some years ago two farmers in the northern part of Prince Edward Island, noting that the fur of the Prince Edward Island silver black fox commanded higher prices than any other fox fur on the London market, entered into a partnership to breed foxes in captivity. The stock was bred from Prince Edward Island wild foxes caught in traps and held in captivity in wire enclosures. The experiment proved a great success; the pelts sold at prices ranging from \$100 to \$2,000 each, seldom selling for less than \$500 a pelt, and the two pioneers amassed large fortunes before the nature of their enterprise became widely known. Their



FIG. 10. PRINCE EDWARD ISLAND BLACK FOX.

example was followed by others, and it was soon found that more money could be made in selling pups for breeding purposes than in selling the pelts. The demand for silver fox pups became so great that the price steadily increased, and at the time the great war broke out five-months-old silver fox pups of the best Prince Edward Island stock were selling at from \$12,000 to \$16,000 per pair, and old stock of proved fecundity realized as much as \$35,000 per pair. When the pups could be bought at from \$1,000 to \$4,000 per pair a number of farmers started fox ranches, but when the price went up above \$10,000 it became impossible for the ordinary farmer individually to buy foxes. Then it occurred to someone to organize joint stock companies for fox-breeding purposes. In April, 1914, there were in Prince Edward Island 194 limited liability joint stock companies that had been organized for the purpose of breeding fur-bearing animals, chiefly silver black foxes. These companies had an authorized capital of \$31,232,700, but a number of the companies have not yet been floated and probably not more than half the stock has been actually issued. A large proportion of the farmers of Prince Edward Island are said to have invested in the stock



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of fur-farming companies. In April, 1917, Prince Edward Island breeding foxes could be purchased at the following prices:

Silver black foxes.....	\$1,500 per pair.
Black foxes.....	1,800 " "
Grey and brown foxes, about.....	600 " "

Very few silver fox pelts have been sold in Prince Edward Island in recent years owing to the great demand for breeding stock, but it is generally agreed that, as the silver foxes on the ranches are rapidly increasing, the industry will come down to a pelt basis in a few years. The calculation has been made that if the prices should keep up long enough to enable the farmers to get back the money they have invested in fox breeding they could afterward make good profits raising silver foxes for pelts if the price of pelts should fall as low as sixty dollars.

Mr. J. Walter Jones, who was selected by the Canadian Commission of Conservation to make a special study of Prince Edward Island fur farming, said, in reference to the price of fox pelts in 1914:

The average price of wild silver fox skins in London is about \$200, and for ranch foxes such as are found with the best ranchers \$1,200. Wild silver fox skins are not always prime, and they are frequently shot, chewed, mangled and poorly dressed, while ranch foxes are usually killed when their fur is in prime condition. The highest price ever paid at the London sales for a silver fox skin was \$2,900. It is said that this skin was sold by a Paris firm which had bought it at a previous sale for \$1,950, and that it was from a ranch fox from Prince Edward Island. The next highest price was \$2,700, and half a dozen have sold for \$2,500 or more, all being from Prince Edward Island ranches. A remarkable sale was made in March, 1912, when a pelt from a fox that died in James Rayner's ranch at Kildare, Prince Edward Island, on October 12, 1911, brought the highest price, \$2,050, although the skin would not have been fully prime before December.

Prince Edward Island fur breeders claim that the climate of the island is more favourable to foxes than any other known locality, and they point to the price realized by Prince Edward Island skins at the London auction sales as proof of their contention.

Prince Edward Island's example is being followed in other provinces of the Dominion.

## FISHERIES OF CANADA.

Nature has endowed Canada with most extensive fisheries. The long coast line and the numerous bays, inlets and harbours on the Atlantic and Pacific oceans, the gulf of St. Lawrence, the bay of Fundy, Hudson bay and the Pacific ocean, as well as the great rivers and multitudinous lakes, both large and small, in the interior of the country have already been referred to. The coast line on the Arctic ocean need not be considered, as it is uncertain to what extent its waters can be utilized by fishermen, although there is a possibility that important sea fisheries may eventually develop directly north of the mouth of the Mackenzie, a part of the Arctic which is even now frequented by whaling vessels coming from Behring sea.

The temperature of Canadian waters is favourable to the production of fish of fine flavour and good keeping qualities, while the extraordinary number of inlets, bays and harbours along the coasts not only

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make feeding and breeding grounds for countless millions of fish, but afford convenient havens for fishing vessels, so that catches of fish can be quickly prepared for market, and, whether fish are to be sold fresh or preserved by drying, smoking, pickling or canning, it must be evident that they are in better condition for human food when prepared and packed soon after being caught than if they must be transported long distances by the fishing vessels. Canada employs eight men in the in-shore fisheries for one employed in the deep-sea fisheries, but even the Canadian deep-sea fishermen have an advantage over Americans fishing in the same waters, because the Canadian home harbours are much nearer to the deep-sea fisheries. Nothing is more essential to successful fishing than convenient supplies of bait, and in securing bait the great number of bays along the coast is of immense advantage to Canadian fishermen.

There are a number of varieties of salmon in Canadian waters. The Atlantic salmon, bearing the scientific name of *Salmo salar*, is found along the Atlantic and Gulf coasts and the rivers emptying into the sea in the Maritime Provinces and Quebec. It is famous for its delicious flavour. In some of the lakes of New Brunswick there is a land-locked salmon differing little from the Atlantic salmon, and certain lakes of Quebec have a salmon of remarkably fine flavour known as the Ouananiche. While large quantities of salmon are caught in Quebec and the Maritime Provinces the most extensive salmon fisheries are in British Columbia, where a great canning industry has been established. Salmon swarm along the coast of British Columbia and ascend the rivers in myriads, climbing over rapids and waterfalls and swimming through the torrents of the canyons, to be caught sometimes 600 miles in the interior. British Columbia has a number of varieties of salmon. The one which is most important commercially is the Sockeye or Blueback, which is known to scientists as the *Oncorhynchus nerka*. This is the salmon used most extensively in the British Columbia canneries, as its flesh is not only of fine flavour, but contains a large amount of oil. Other varieties canned are the Coho or Silver salmon, the Quinmat or Spring salmon and the Humpback or Pink salmon. The Quinmat or Spring salmon, which is the first to ascend the rivers, is the largest of the Pacific coast salmon. It is in great demand as a fresh fish. The Spring salmon are most plentiful in the waters around Queen Charlotte islands and the vicinity of the Skeena river. The Dog or Chum salmon is not regarded as very suitable for canning, but is excellent when fresh or salted, and large quantities of salted Dog salmon are consumed in Japan. A salmon of particularly fine quality of the same variety as the Sockeye is known as the Alaskan Red. It swarms in the northern waters of British Columbia and Alaska and in the deep sea of the far north. Large quantities of salmon are caught in the Yukon territory for local use.

The Canadian lobster fisheries are confined to the coastal waters of the Atlantic and the gulf of St. Lawrence. They are the most productive lobster fisheries in the world. There are a large number of lobster canneries along the coasts of Nova Scotia, Prince Edward Island, New Brunswick and Quebec.

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Next to Newfoundland, Nova Scotia has the greatest cod fisheries, Quebec, New Brunswick and Prince Edward Island following in order of quantities caught. They are marketed as dried, green salted and fresh fish. The British Columbia cod is slightly different from the Atlantic cod, the head being larger, while the air-bladder or "sounds" is said to be smaller.

Herring are caught in large quantities in all the Maritime Provinces, Quebec and British Columbia.

There are no real sardines caught in Canadian waters, but in New Brunswick great quantities of young herring are canned and sold under the name of sardines.

British Columbia ranks first in the halibut fisheries, but considerable quantities are caught in Nova Scotian waters and small quantities in New Brunswick and Quebec.

Mackerel are caught extensively along the coast of Nova Scotia and in smaller quantities in New Brunswick, Prince Edward Island and Quebec.

The Canadian haddock, familiarly known as the "haddie," is confined to the waters of the Atlantic and the gulf of St. Lawrence. Nova Scotia leads in the catch, with New Brunswick, Prince Edward Island and Quebec following in order of quantities.

All three Maritime Provinces and Quebec market large quantities of hake and cusk. The pollack is caught in abundance along the coast of Nova Scotia and in New Brunswick along the coast of the bay of Fundy. The Maritime Provinces and British Columbia market considerable quantities of clams and quahaugs. Alewives are found only on the Atlantic coast, but shad, smelts, tomcod, flounders and sea trout are caught on both the Atlantic and Pacific coasts. Anchovies and oolachan abound along the coast of British Columbia. The common sturgeon is caught along the Atlantic coast and in the St. Lawrence river and its tributaries. The striped bass is fond of brackish water and ascends the New Brunswick rivers to spawn.

Hair seal-skins are caught in the Atlantic and gulf of St. Lawrence, and off the coast of British Columbia. There are no fur seals in the Atlantic, but a few are caught in British Columbia waters. Whales are caught in the gulf of St. Lawrence, Hudson bay, and along the coast of British Columbia.

The production of Canadian oysters is not very large at present, but there is reason to expect a great development in the oyster fisheries in a few years. Until recently no systematic measures to develop the oyster fisheries were taken, and as a result of wasteful methods the oyster beds were almost depleted. Prince Edward Island, which has always been particularly noted for the fine quality of its oysters, is leading the way in oyster development. All the areas in which there are live oyster beds and all those areas in which it is believed oysters could be successfully raised have recently been surveyed by the Government, and it is proposed to lease these areas under strict regulations to insure development. Small areas will be set aside for individuals and large areas for companies, and it is expected that in a few years a very important oyster industry will be developed. Dr. Joseph



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Stafford, of McGill University, who has made a special study of oysters, and is regarded as the highest Canadian authority on oyster culture, states that the Canadian oyster is superior to any other. After referring to the high reputation of the flavour of the Canadian oysters as compared with the United States oysters, Dr. Stafford says:

Our Canadian oysters took first place at the International Exposition at Paris some years ago. They had to be collected from various places in the Maritime Provinces, and during that time they were standing in barrels on wharves, sometimes in the hot sun. After having been subjected to that treatment they had to be transported across the Atlantic and placed on wharves there until the exhibit could be arranged, and yet when placed in competition with European oysters, that had been taken from the water only the day before, they were awarded first place. So there must be something in their ability to withstand rough usage and change of climate. Oysters as well as fish that are taken out of cold waters can stand transshipment and retain their flavour better than those taken out of warm waters.

The British Columbia oyster is very small, never exceeding two inches in length, while the Prince Edward Island oysters often reach a length of seven or eight inches, and they have been known to reach a length of fifteen inches. The Atlantic and Pacific oysters are distinct species and cannot inter-breed. However, some Prince Edward Island oysters were transplanted on the coast of southern British Columbia several years ago. They appear to be breeding and doing well, but the results are not yet definitely known.

The whitefish is the finest of freshwater fish. It is found in the lakes and rivers of New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, the Northwest Territories, British Columbia and the Yukon Territory. Sir John Richardson, the Arctic explorer, who lived in the Northwest Territories for a considerable time with no other food than the whitefish, which is abundant in all the northern lakes and rivers, wrote regarding this fish: "Though it is a rich, fat fish, instead of producing satiety it becomes daily more agreeable to the palate, and I know from experience that, deprived of bread and vegetables, one may live wholly upon this fish for months, or even years, without tiring."

In Ontario and Quebec there is a lake herring known as the cisco, which is particularly abundant in lake Erie. While Canada has both sea trout and freshwater trout, the greater part of the catch is in fresh water, all the provinces and territories except Nova Scotia and Prince Edward Island contributing to the total. The two most widely distributed varieties of freshwater trout are the salmon trout or lake trout and the speckled or brook trout. In certain lakes of Quebec there is a variety of trout known as the Red Canadian trout. Other freshwater fish widely distributed in the inland lakes and rivers of Canada are sturgeon, pickerel and pike, carp, tullibee, bass, catfish and gold-eyes.

In Manitoba, Saskatchewan and Alberta the fishing is usually done in the winter, after the lakes are frozen over. At that season of the year the farmers have time to spare, and much of the fishing is done by them. Holes are cut in the ice.

With the exception of the visits of whaling vessels, the fisheries of Hudson bay and James bay have never been exploited, but the con-

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struction of the Government railway from Pas to Port Nelson, and the proposed extension of the Ontario Government railway to James bay, may bring about the development of these fisheries. An investigation of the possibilities of James bay was recently made by the Fisheries Branch of the Department of Marine and Fisheries. Many kinds of food fish were found in great abundance both in the bay and the rivers flowing into it. It is interesting to note that the whitefish, commonly regarded as exclusively freshwater fish, are found in abundance in James bay. They run up the rivers to spawn. The James bay whitefish are not as large as those of the lakes, but are of good flavour.

## MINERAL RESOURCES.

The mineral resources of Canada have scarcely been touched as yet. The greater part of the Dominion has never been prospected. Even in the older districts very little development work has been done. The Canadian Geological Survey and the Mines Branch of the Department of Mines have done valuable exploration work. They have a number of very capable men at work and their reports are of great value in forming an estimate of the mineral resources of the Dominion, but the country is so vast that they can thoroughly examine only small portions of it, and at best they can do little more than describe surface indications. The real value of mineral deposits can usually only be determined by costly development work, which must be left to the enterprise of capitalists. In the past, Canada has lacked capital and this has retarded the development of mineral resources. However, it has been established beyond doubt that Canada has in the province of Ontario the most valuable nickel deposits known to exist anywhere in the world; that the largest asbestos mines known are in the Canadian province of Quebec, and at present supply the greater part of the world's consumption of asbestos; that the amber mica deposits of Ontario and Quebec are very extensive, and are the only large supplies of this mineral known to exist outside Ceylon, while Canada already ranks third among the silver producing countries of the world, the output of silver for the last seven years being 209,974,624 oz., valued at \$119,093,924.

**Gold.**—Canada has always been a producer of gold. The smallest output in any one year since Confederation was in 1892, when the production was 43,905 oz., valued at \$907,601. The largest production in any one year was 1,350,057 oz., valued at \$27,908,153, in the year 1900, when Klondyke gold mining reached its climax. The total production of gold for the fifty years from 1867 to 1916 was 17,199,700 oz., valued at \$355,549,839. In 1916, the production was 926,963 oz., valued at \$19,162,025.

The gold-bearing rocks of Nova Scotia extend along the Atlantic coast from Canso to Yarmouth, and are estimated to cover about 3,000 square miles. Very little capital has been invested in them, but mining operations on a small scale have been steadily continued for a little over half a century, and over seventeen and a half million dollars worth of gold has been extracted, the annual average being over 18,000 oz. of gold. New Brunswick is not a producer of gold, although small quantities of gold have been found in the washings of some of the rivers.

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Alluvial gold in small quantities is found in Quebec in the valley of the Chaudière and its tributaries, but the total output of gold, including the amounts recovered from the copper sulphide ores and the alluvial gold, averages only about 700 oz. annually.

The Porcupine lake district of Ontario is now a large producer of gold. The first important discoveries of gold in this district were made in 1909. There are now a number of mines in the district producing gold, and the output is increasing. There are also gold producing mines at Kirkland, Swastika and Larder lakes in the district between Cobalt and Porcupine lake. Gold is produced in small quantities in the Parry Sound district, in the district north of lake Huron, at Michipicoten near the iron mines and in the vicinity of Shebandowan lake, Sturgeon lake and the lake of the Woods. In south-eastern Ontario gold has been found in Peterborough, Hastings, Lennox and Addington counties.

Gold in small quantities has been found along the Peace and Liard rivers and their tributaries, but there have been no great discoveries of gold anywhere in the Prairie Provinces.

The Yukon Territory became famous during the latter part of the nineteenth century owing to the great rush of gold seekers to the Klondike region. From 1885 to 1913, inclusive, the Yukon Territory produced 7,369,955 oz. of fine gold. The greatest production was in the year 1900, when 1,077,553 oz. of gold were produced. It decreased steadily after that until 1907, when the output was only 152,381 oz. Since 1907 there has been a gradual but steady increase, owing to the introduction of improved machinery.

From 1862 to 1915, inclusive, British Columbia produced 7,200,904 oz. of fine gold. The production in 1915 was 288,521 oz. of fine gold. Prior to 1890 nearly all the gold was taken out by placer miners. The Fraser river, Cariboo, Quesnel and Cassiar districts were in turn famous for their gold production. There is still quite a large production of gold from the placer and hydraulic operations in Cariboo, Quesnel, Omineca and Atlin districts, but in recent years lode mining has been responsible for the greater part of the output. The most productive gold mine is at Hedley, in the Similkameen district. There are a number of gold mines in operation in the Nelson district, at Paulson and Long lake, on Bridge river, on Princess Royal island, Moresby island, and on Taku arm, Atlin lake. Nearly all the copper ores of the province are auriferous, and many of them contain a combination of gold, silver and copper.

**Silver.**—Neither Nova Scotia nor New Brunswick is a producer of silver. Small quantities are produced in the province of Quebec. The province of Ontario leads Canada in silver production. In the year 1903, in the district of Timiskaming, a little to the west of lake Timiskaming, extensive deposits of silver-cobalt ores containing an extraordinarily high percentage of silver were found. During the first ten years that the mines were worked 185,500,000 oz. of silver were taken out, and the total dividends paid by the silver mining companies of the district during that period amounted to \$48,922,130. The ores containing phenomenal quantities of silver have been depleted in some of the mines, and ores of lower grades are being worked, so that to pro-



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duce the same quantity of silver as formerly it is necessary to handle more ore, use more machinery and employ a larger number of men. The deposits are believed to be extensive enough to ensure a large output for many years. Silver has been found at a number of other points in northern Ontario, but the production outside the Cobalt district is small.

Many years ago silver was discovered in large quantities on a tiny island about ninety feet square in lake Superior near Thunder Cape. When the mine was abandoned in 1884, work had been carried on to a depth of 1,160 feet and it is estimated that silver to the value of \$3,500,000 had been extracted.

**Electro-Plating with Cobalt.**—It is estimated that the silver ores and concentrates as shipped from Cobalt contain on the average 3.20 p.c. of cobalt, 1.47 p.c. of nickel and 14.28 p.c. of arsenic. Some of the ores contain much larger quantities of cobalt, and it was the original discovery of ores remarkably high in cobalt that gave the name to the district. The smelting companies that buy the ore from the operators of silver mines usually pay nothing for the cobalt, nickel and arsenic, and an exact record of the output of cobalt is not obtainable; but it is estimated that the production in this district is greater than that of all other countries combined. Dr. Herbert T. Kalmus, who recently conducted a series of experiments in electro-plating with cobalt at Queen's University, Kingston, Ontario, for the Mines Branch of the Canadian Department of Mines, reports that a solution of cobalt known as XIII B is capable of electro-plating at a speed of at least fifteen times as great as nickel, that the cobalt deposited at this rapid speed is very much harder than the nickel deposited in any commercial nickel bath, and that consequently a lesser weight of this hard cobalt deposit will offer the same protective coat as will a greater weight of the softer nickel deposit, so that for many purposes one-fourth the weight of cobalt as compared with nickel is required. Dr. Kalmus says that no nickel solution begins to compare with XIII B for the range of work which it will do and for the extremely high current densities at which it will operate, and that it is possible to get a plate in five minutes or less with solution XIII B which will stand bending tests and will buff as satisfactorily as a plate which has taken one hour from the usual nickel-plating baths. The cobalt plates take a very high polish with a beautiful lustre, which although brilliantly white possesses a slightly bluish cast. The director of the Mines Branch believes that as a result of these discoveries there will soon be a large demand for cobalt for electro-plating.

**Silver-Lead Ores.**—British Columbia has produced silver in considerable quantities steadily for many years. It comes chiefly from the argentiferous galena ores, but to some extent from the auriferous copper ores. Dr. Eugene Haanel says of the silver-bearing galena ores of British Columbia:

There are a few producing mines in the Sheep Creek district, south of Nelson, but the largest number of mines are located in the Ainsworth and Slocan districts. The Sandoz-Silverton camps especially are showing promise, development at depth having been very satisfactory. The ores are argentiferous galena and tetrahedrite, with native silver and sometimes gold, argenticite, zinc blende, etc., in veins cutting sediments. The ores of the Lardeau may be said to belong rather to the silver ores than to the lead,

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and the same may be said of the Greenwood camp. The West fork of the Kettle river will probably add some shippers to the list with the opening of traffic on the Kettle Valley railway, and the Canadian Northern railway may provide shipping facilities for the silver-lead properties of the North Thompson River Valley. West of Princeton in the Similkameen, at Leadville, there are some properties, and on the coast Portland Canal district is another silver-lead producing area. Shipments have already been made from several mines in the neighbourhood of Hazelton on the Skeena river. Development has been going on quietly for several years awaiting the advent of transportation, and with better facilities shipments may be expected to increase rapidly. The lead ores of British Columbia are nearly all shipped to the smelter of the Consolidated Mining and Smelting Company at Trail, which operates in connection therewith an electrolytic lead refinery, the products of which are refined gold, silver and lead, copper sulphate and antimony. A few of the coast ores find their way to American smelters.

The Yukon territory has been a steady producer of silver for some years. While indications of silver have been reported at various points in northern Manitoba, Saskatchewan and Alberta, it has not yet been found in economic quantities.

There are argentiferous galena deposits in Cape Breton county in the island of Cape Breton, but their value is uncertain.

**Zinc and Lead Deposits.**—Most of the British Columbia galena ores are said to contain enough zinc blende to make the recovery of the zinc a matter of importance, and the establishment of electrolytic reduction works at Trail, B.C., has made both the zinc and lead contents of these ores more profitable than when they had to be shipped to the United States for treatment. In January, 1917, there were twenty mines producing zinc. The Sullivan mine in East Kootenay is the most important. There are many deposits of zinc-bearing ores in the province in the interior, on the mainland coast and on Vancouver island that have never been worked.

Many discoveries of zinc and lead have been made in Quebec and Ontario, but very little mining has been done. Both zinc and lead are mined at Notre-Dame-des-Anges, Portneuf county, Quebec, in considerable quantities. There are zinc-lead deposits on Calumet island in the Ottawa river, and some mining has been done. Lead is mined on Chats island in the Ottawa river and in Frontenac and Hastings counties, Ontario. Zinc has been mined at Zenith, a few miles from Rossport station on the Canadian Pacific Railway, north of lake Superior. In most of the counties of Eastern Ontario and at a number of points north of lake Huron and lake Superior discoveries of zinc and lead have been made. Sometimes they are associated and sometimes separate. There are indications of lead in various parts of New Brunswick, but no important deposits have been discovered. There is a zinc blende deposit in Inverness county, Cape Breton, on a branch of the Cheticamp river.

**Nickel.**—Ontario has in the Sudbury district the greatest nickel mines in the world and supplies over two-thirds of the world's consumption of nickel. Dr. A. P. Coleman has prepared for the Canadian Department of Mines a very interesting report of over 200 pages describing the nickel deposits of the Sudbury district from which the following information is condensed. The town of Sudbury, from which the mining region takes its name, lies about 35 miles north of Georgian

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bay. It may be reached from Montreal by a journey of 439 miles westward on the main line of the Canadian Pacific railway, or from Toronto by a journey of 260 miles north on the Canadian Pacific railway or the Canadian Northern railway. The nearest nickel mines are about two miles to the north and three miles to the west. The smelting is mostly done at Copper Cliff, a short distance from the town of Sudbury. The nickel region has sharply defined geological boundaries, all the ore deposits being connected with a single great sheet of eruptive rock, roughly boat-shaped, having its interior filled with sedimentary rocks.

The basin is thirty-six miles long and sixteen miles wide, and the known ore deposits are all either along the edge of the sheet or less than four miles away from it. The nickel deposits are not distributed uniformly around the basin. There are rich portions separated by barren portions. Along a somewhat irregular line of thirty-three miles, on the southern margin of the nickel-bearing eruptive, seventeen mines have produced nickel ore, and within two or three miles to the south of it ten other mines have been worked. While some of the deposits appear to be pockets, there are a number of extensive bodies of ore. It is believed that the Canadian Copper Company has enough ore in two of its mines to last for sixty years, while there are a number of other mines supposed to contain great quantities of ore. The whole nickel basin includes an area of 550 square miles, divided among twenty-four townships of the regular size and shape. Mining has taken place in eight of these townships, while important ore deposits are known to exist in several others. The Sudbury ores are sulphides, containing on the average about 45 p.c. of iron, about 3.09 p.c. of nickel, 2.12 p.c. of copper and small quantities of cobalt, gold, silver, platinum and palladium. The iron content of the ore is thrown out and wasted in the smelting process, the aim being to produce a nickel-copper matte suitable for shipment to the refineries in the state of New Jersey and in Wales.

The Sudbury ores all contain large quantities of sulphur, and the first process to which they are subjected is roasting to remove part of the sulphur. They are then smelted in water-jacket furnaces, producing a matte which is re-smelted in Bessemer converters, making a matte containing from 75 to 80 p.c. of nickel and copper, of which less than half is copper. In the roasting process the sulphur thrown off is entirely wasted. It destroys all vegetation in the neighbourhood. Deposits of low-grade nickel have been reported in a number of other localities in Ontario. The Alexo mine in Dundonald township, near Matheson, in northern Ontario, is said to have the most promising nickel deposits outside of the Sudbury district. The discovery of a new nickel range near Schreiber on the Canadian Pacific railway has been reported. Small quantities of nickel ore are found in the Cobalt silver ores. Arrangements have been made for the construction of great works for the refining of nickel in Canada.

**Copper.**—Besides the copper which is associated with nickel in the Sudbury district and near Matheson, copper sulphides have been found in Ontario in the North Hastings, Parry Sound, Timiskaming and Timagami districts, and in the section west of Port Arthur, but their extent and value are unknown, as there has been no development work.



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Small quantities of native copper have been found on the shores of lake Superior, but as yet not in economic quantities. Between the Sudbury district and Sault Ste. Marie, along the north shore of lake Huron and extending northward for forty miles, is a district in which many discoveries of low-grade copper ores have been made. It is believed that there are large quantities of copper ore, but no economic method of concentration has been introduced, and all the mines that were opened have suspended operations. The Bruce and Walker mines in this district were at one time much talked about. Large quantities of ore were taken out. Practically all the copper produced in Ontario comes from the nickel ores of the Sudbury mines and the Alexo mine. Many small deposits of copper have been found in different parts of New Brunswick, but most of them have not been considered sufficiently large to be worth working. A considerable amount of capital has been invested in the Intercolonial Copper Company's mine near Dorchester, N.B. The ore of this mine contains an excessive quantity of lime, silica and iron, but it is claimed that an economical process of concentration has been adopted. A copper vein at Annidale, King's county, is also being worked. Copper sulphides have been discovered at a number of points in Nova Scotia, but no important producing mines have been developed. In the Eastern Townships of Quebec province many small deposits of copper sulphides have been discovered, and at some points they are found in considerable quantities. Mining operations have been conducted for many years. In the vicinity of Sherbrooke there are three active mines. The sulphur content of the ore, which runs over 40 p.c., is utilized for the manufacture of sulphuric acid, and the copper is then recovered from the residues by smelting. Small quantities of gold and silver are also recovered from these ores.

Copper-bearing minerals have been found in a great many localities in British Columbia, both in the interior and on the coast and the islands along the coast. New discoveries may be expected from time to time. Dr. Eugene Haanel states that the copper-bearing minerals are usually chalcopyrite or bornite, or both. These may occur alone, but usually they are found in association with other minerals, the commonest of which are pyrrhotite, magnetite, pyrite, mispickel and occasionally blende and galena. The principal districts in which important discoveries have been made are in southern British Columbia, in the West Kootenay and Kamloops districts, in the Coast district at a number of points along the mainland, on Vancouver island and on some of the coastal islands. The most important active producing mines are at Rossland, at Phoenix, and at Motherlode in the interior, and at Britannia or Howe sound, Texada island, and Granby bay on the coast. In the Rossland ores gold is the most valuable constituent, the gold content varying from 0.4 oz. to about 1.5 oz. per ton, the silver from 0.3 oz. to 2.5 oz. per ton, while the copper content runs from 0.7 p.c. to about 3.5 p.c. The deposits of copper-bearing ores in the Boundary district range in size from small lenses less than 20 feet in thickness and 100 feet in length to huge ore bodies, one mine at Phoenix having a thickness of 125 feet, a known width of 900 feet and a length of about 2,500 feet. The average ore contains from 1.2 to 1.6 p.c. of copper with about one

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dollar in gold and silver per ton. The most important producing mines are in the vicinity of Phoenix and at Deadwood, about four miles from Phoenix. The deposits of copper ores at Howe sound are believed to be very large, and extensive development work is in progress. They contain small quantities of gold and silver. The deposits of copper ores near Granby bay, about 110 miles from Prince Rupert, have proved very important. The copper ores of the Rossland district are smelted at Trail, forming a matte containing copper, silver and gold, which is sent to the United States for refining. The copper ores of the Boundary district are smelted at Grand Forks and at Greenwood. There is also a copper-smelting plant at Ladysmith, on the east side of Vancouver island, and a very large and completely equipped smelting plant recently commenced operations at Anyox, on Granby bay.

The late Dr. G. M. Dawson, while Assistant Director of the Canadian Geological Survey, stated before a committee of the Dominion Senate, in 1888, that there was every reason to believe that the rocks along the Coppermine river were as rich in copper as those in the lake Superior district of Michigan. Mr. J. B. Tyrrell, reporting on the copper possibilities of the far north, said:

The copper-bearing rocks would seem to extend along the Arctic coast, both east and west of Coppermine river for about five hundred miles in all, and probably many of the smaller islands off the coast are also of the same rocks, and the total area of these rocks undoubtedly amounts to many thousands of square miles. Comparing the early accounts of the occurrence of native copper on lake Superior with the accounts which we now possess of the copper on Coppermine river, and considering the enormous extent of the northern deposits, we have reasonable grounds for hope that before many years the Coppermine area will produce as much copper as is now mined in northern Michigan.

The Eskimos of the far north all have spear and arrow heads, needles, etc., beaten out of pure copper. The Eskimos who come to Fort Churchill to trade have snow-knives, ice-chisels, and fish hooks made out of native copper. They use copper tops over their pipes while smoking, and any break in their guns is usually mended with copper. From the stories they tell it would appear that there are great quantities of native copper along the Arctic coast and on the islands of the Arctic, near the coast. So little real exploration for any minerals has been done in the Northwest Territories that it is impossible to speak very definitely of the general mineral possibilities, but experts of the Canadian Geological Survey have expressed the opinion that the rocks in the country, back of Chesterfield inlet, are similar in character to the Huronian rocks of Ontario which have yielded such rich results in copper, nickel, silver and gold. Coal of good quality is said to exist on some of the northern islands.

**Asbestos.**—The asbestos deposits of the province of Quebec are the most important yet discovered anywhere, and they are said to supply 80 p.c. of the world's consumption. The principal deposits so far discovered are at Thetford, Black lake, Robertsonville, Dunville and East Broughton, in the counties of Megantic and Richmond. Large mills are in operation preparing the asbestos for the market.

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**Coal Fields.**—The Canadian province of Nova Scotia has the only coal yet discovered on the Atlantic seaboard of America. The coal is bituminous, of good quality, some of the seams being particularly suited for steam-making and for the manufacture of coke for blast furnace use, while others are better adapted to the production of gas. There are extensive beds of coal with seams of great thickness on both the eastern and western coasts of Cape Breton island, in the central county of Pictou, and in Cumberland county at the extreme west of the province. Mining operations are carried on in each of these sections; so that there are mines convenient not only to all parts of the province of Nova Scotia, but also to Prince Edward Island and New Brunswick, while in summer shipments can be made from all the mines by way of the St. Lawrence river to the province of Quebec. Coal is believed to exist at a very great depth in Prince Edward Island, but the cost of getting at it would be so great as to make mining unprofitable in competition with the coal of Nova Scotia under present conditions.

According to geologists there are possibilities of coal discoveries in portions of nine counties of New Brunswick, viz., Gloucester, Northumberland, Westmorland, Albert, Kent, Queen's, King's, Sunbury and York, but the seams so far discovered are very thin compared with those of Nova Scotia. The coal is bituminous, being similar in quality to Nova Scotia coals, but not of as high grade as the best Nova Scotia coal. In the vicinity of Grand lake, in Queen's county and Sunbury county, coal is estimated to underlie an area of about 100 square miles. Active mining operations are being carried on by several companies near Minto. There are two seams mined, one from twenty to thirty inches, and the other from six inches to ten inches thick. In many places the two seams are only separated by about six inches of shale. Small quantities of coal are being mined in Kent county, in the vicinity of Beersville. There are deposits of peat in the counties of St. John, Gloucester, Northumberland and Kent.

Geologists say that no coal will ever be found in the provinces of Quebec and Ontario, south of the Height of Land. There are possibilities of coal discoveries north of that watershed. Peat of good quality is widely distributed in both provinces. It is remarkable that, while peat has been widely used in Europe for fuel and other purposes, in Canada this natural resource is almost entirely neglected.

Quebec province can get supplies of coal in summer from Nova Scotia by the St. Lawrence river, but Ontario is dependent almost entirely on the United States for coal, as Nova Scotia coal goes no farther west than Cornwall. Some of the mine operators of Nova Scotia believe that if the Ottawa and Georgian Bay Canal were constructed and the St. Lawrence canals enlarged, they could lay down coal at all ports of Ontario bordering on the Great Lakes and Georgian bay. Coal can be carried much more economically in large ships than in small ones, and the coal boats coming from Nova Scotia to Montreal are too large to pass through the St. Lawrence canals, while the cost of transshipment to smaller boats at Montreal is too great to allow competition of Nova Scotia coal with American coal, which is mined much nearer to Ontario.



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Lignite of rather poor quality is found in the Turtle Mountain district of southwestern Manitoba, covering an area of about forty miles long and twenty miles wide. While small quantities of this lignite have been mined, no mining operations on an extensive scale have ever been undertaken. There are extensive beds of peat in Manitoba. In the Souris district of southern Saskatchewan there is lignite of better quality, beginning a little west of the Manitoba boundary, and extending along the United States frontier for about 150 miles, with an average width of about twenty-five miles from south to north. There are a number of small coal mines near Estevan in this district, and the present annual output is about 200,000 tons. There are believed to be deposits of lignite extending almost completely across the southern part of Saskatchewan from Estevan to Alberta. In the eastern part of the province of Alberta, both in the southern and northern districts, there are extensive deposits of semi-bituminous coal, grading between lignite and bituminous. The quality of the coal improves as it extends westward, and when the foothills are reached it becomes bituminous, while in the basin of the Cascade river, a few miles east of Banff, it becomes anthracite in some localities. It has been estimated that there are 400,000,000 tons of anthracite coal and 1,200,000,000 tons of soft coal in the basin of the Cascade river. The total areas of known coal deposits in the province of Alberta, including anthracite, bituminous and semi-bituminous coals, have been estimated to underlie 30,000 square miles of the province. The principal mining centres of semi-bituminous coal are along the Belly river between Lethbridge and Medicine Hat, and in the vicinity of the city of Edmonton. The principal mines of bituminous coal being operated are along the line of the Crowsnest branch of the Canadian Pacific railway, a little east of the British Columbia boundary, while the anthracite mines are near Canmore and Bankhead on the main line of the Canadian Pacific railway.

Recent experiments made by the United States Bureau of Mines, with lignites inferior to those of the Prairie Provinces of Canada, have demonstrated that cheap power can be produced from them. Referring to these experiments in a report to the Canadian Commission of Conservation, Mr. W. J. Dick says: "It was found that the low-grade lignite of North Dakota developed as much power when converted into producer gas as did the best West Virginia bituminous coal when utilized under the steam boiler." The Mines Branch, Canadian Department of Mines, made seven ordinary gas-producer trials with lignites and lignitic coals of low calorific values. Good results were obtained in every case, the gas being of high calorific value and uniform in quality. It is believed that in districts where water-power cannot be economically developed electric energy can be generated from those lignites and distributed to towns some distance from the mines.

The Crowsnest Pass coalfield in British Columbia, not far from the Alberta boundary, has been estimated by Mr. James McEvoy to underlie 230 square miles, with a workable thickness of coal seams of 100 feet, and to contain 22,595,200,000 tons of coal. Farther north, at the Kananaskis pass, partly in British Columbia and partly in Alberta,

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there is a coalfield which is stated by geological experts to contain large quantities of coal. The Nicola Valley coalfield, south of Nicola lake, in the Kamloops district, is conveniently located to supply the central part of southern British Columbia, but is less extensive than the Crowsnest. At Princeton, in the Similkameen valley, a good quality of lignitic coal is being mined. There are a number of other coal fields in the southern interior of British Columbia awaiting development. In the Telkwa valley, in the northern part of British Columbia, near the Grand Trunk Pacific railway line, coal of good quality varying from bituminous to semi-anthracite has been discovered. Near the west fork of the Skeena river, in latitude N.  $56^{\circ}45'$ , there are deposits of anthracite or semi-anthracite coal which are believed to be extensive. In the British Columbia section of the Peace river valley coal has been discovered, and the field is reported to be very extensive. The first coal mines developed in British Columbia were those of Vancouver island, in the Nanaimo and Comox districts, on the east coast. More recently a number of mines have been opened in Suquamish district, about 125 miles north of the Comox field. Coal of good quality is also found in the Queen Charlotte Islands.

**Iron Ores.**—In considering the iron ore deposits of Canada it must be said that, in the older sections, the optimistic predictions made by geologists many years ago have not been realized. In many cases what they supposed to be numerous outcroppings of a great ore bed proved to be pockets. So far no great bodies of high-grade ores have been found, but it must be noted that the supplies of high-grade iron ores within convenient reach of the blast furnaces of the great iron and steel making countries are now almost exhausted, and the low-grade ores of Canada will not have to compete with them very long. In a paper read before the American Institute of Mining Engineers, Mr. James Gayley said:

There are vast deposits of magnetic iron-ores in the United States and Canada that are too low in iron for use at the present time, but which can be economically concentrated into very rich material; in many cases the fineness of crushing necessary to secure proper concentration has prevented their use except in extremely limited quantities. The reclamation of these ore-bodies will add tremendously to the ore-reserves of Canada and the United States, and this can best be done by a simple and efficient method of sintering.

He proceeded to explain a process of sintering that has proved successful at a number of iron and steel plants in the United States. The product is ideal for use in the blast furnace owing to the fact that it has a cellular structure like a popcorn. It is claimed that these sintered concentrates from low-grade ores are superior to the natural high-grade ores, and that the expense of treatment is not great.

There are indications of iron in almost every part of Nova Scotia, and at one time it was commonly supposed that the province had almost inexhaustible supplies of this mineral. Investigation showed that most of the deposits were merely pockets, and the impression became general that Nova Scotia iron ores were of little value. If all the iron ore deposits in Nova Scotia were concentrated at one point there would be enough to supply very extensive works. No section of the province is far from

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the sea, and there are so many excellent harbours on all the coasts of the province that the cost of shipment would not be great. Mr. J. E. Woodman, a mining engineer who has prepared an interesting report on the iron ores of Nova Scotia for the Dominion Department of Mines, expresses the opinion that there are, scattered throughout Nova Scotia, in close proximity to transportation facilities by rail or water, a large number of deposits which, while not individually extensive enough to justify the erection of local smelters, could be economically mined for transportation to smelting centres. Development work at Torbrook, in Annapolis county, indicates that the hematite deposits there are quite important. There is some reason to believe that there is an extensive ore bed at Arisaig, on the coast of Antigonish county, but as no development work has been done this is uncertain. The Londonderry iron range, in Colchester county, extends for many miles, and although the deposits are not very deep the total quantity of ore is believed to be quite large. There are a number of varieties of ore in this range, including hematite, limonite, ankerite, siderite and specular ores. Except in the case of some small pockets the iron ores of Nova Scotia are too high in phosphorus to make Bessemer pig iron. They are usually low in sulphur, but Nova Scotia coal is commonly somewhat high in sulphur.

The iron ores of Nova Scotia would probably have received more attention from the iron and steel companies if there had been no other supply available, but the iron and steel companies have extensive deposits of ore at Great Bell island, in Conception bay, off the coast of Newfoundland, about 400 miles from Sydney, and this ore can be mined and transported in large ships to the blast furnaces in Cape Breton island so cheaply that the smaller bodies of Nova Scotia ore cannot compete. Although outside the present limits of Canada these Newfoundland iron ore deposits must be considered in a statement of Canada's natural resources, because their accessibility to Cape Breton's coal and limestone deposits has made it possible to establish great Canadian iron and steel works on the seaboard with ample and permanent supplies of cheap raw materials. English mining engineers have estimated that there is enough iron ore in the areas already opened up by the two great steel companies of Cape Breton island to supply larger plants than those now in existence for over a hundred years, and there are outer areas which, if the seams are continuous, as is supposed, would in their opinion probably yield a much larger quantity of ore than the areas now being worked. The ore has a good percentage of iron. It is low in sulphur, but rather high in phosphorus.

British success in supplying foreign markets with iron and steel has been largely due to the fact that the United Kingdom had extensive supplies of coal and iron ore close to the seaboard, and could get supplies of iron ore conveniently from other countries, while the geographical position of the country is favourable to a world-wide commerce. Nowhere else can conditions be found more nearly similar than in the Canadian island of Cape Breton. Coal is very widely distributed in Cape Breton, but the most valuable seams are those included in the coal field of Sydney, extending from Mira bay on the



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east to Cape Dauphin on the west, a distance of thirty-one miles, and occupying a land area of over 200 square miles, besides extensive submarine areas. The greater part of these coal areas is controlled by the steel companies. They have also extensive limestone deposits close at hand.

Many small deposits of iron ore have been found in different parts of the province of New Brunswick. The most important so far discovered are those in the Austin Brook district of Bathurst county, where mining experts state that great masses of iron ore have been proved. The only development has been at the Drummond mine, on the Nipisiguit river, which is equipped to produce 1,000 tons per day, but is at present idle. As a considerable percentage of the ore is low grade it is necessary to concentrate it. In Carleton county, near Woodstock, there is iron ore of good quality which was smelted with charcoal in the early days, but no mining has been done for years. There is iron ore in St. John's county within twelve miles of the city of St. John, but the extent of the deposits does not seem to have been ascertained. So little mining exploration work has been done in the province of New Brunswick that it is quite possible that very extensive deposits of iron may yet be discovered.

Limestones are found in Charlotte, Kings, Albert, Carleton, Victoria, Madawaska and Gloucester counties, the finest deposits worked being those in St. John county, which are very extensive.

No very large bodies of good iron ore have been proved to exist in the province of Quebec, although there are widespread indications of iron, but it is possible that extensive beds of iron ore may yet be discovered, or that some of the known deposits now regarded as doubtful may prove to be of great value. There is some reason to believe that there may be extensive iron ore deposits along the Gatineau river in Hull township, Ottawa county, within a few miles of the city of Ottawa. Mr. Fritz Cirkel, of the Dominion Department of Mines, who made a report on the iron ore deposits along the Ottawa and Gatineau rivers, thought them of sufficient importance to justify mining on a large scale. There are a number of deposits of iron ore throughout the county of Pontiac. Some of them are evidently poor in quality and limited in extent. Others make a better showing, but only development work would prove whether they are of any value or not. On Calumet island in the Ottawa river both magnetite and hematite ores have been found, but no development work has been done and the quantity of ore is uncertain. An analysis of hematite ore showed it to be very low both in phosphorus and sulphur, but it contained a small percentage of titanitic acid. There are large supplies of limestone within easy reach of the iron ore deposits along the Gatineau and the Ottawa rivers, and there are a number of waterfalls not far distant from which electric power could be obtained. It has been suggested that these ores might be smelted by electricity. In Grenville township of Argenteuil county, about half way between the cities of Montreal and Ottawa, are iron deposits which have been talked of for years, but little development work has been done. There are a number of deposits of magnetite, but no large bodies of ore have been proved. It is estimated that there are many

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millions of tons of iron magnetite sands, containing a high percentage of iron, along the north shore of the St. Lawrence, in the county of Saguenay. These sands could be briquetted easily for use in blast furnaces, but unfortunately they contain a high percentage of titanium. Titanium, while not injurious to iron as sulphur and phosphorus are, causes trouble in the blast furnaces when present in quantity, and will not combine easily with either the iron or the slag. A very small percentage may be handled without much trouble, and it improves the quality of the iron.

Experiments under direction of the Dominion Mines Department have demonstrated that by means of magnetic separators and briquetting machines the sand can be freed almost entirely from its titanium content and made into briquettes suitable for use in the blast furnace, and that pig iron of superior quality can be manufactured from these briquettes. There are a number of deposits of bog iron ore in the St. Lawrence valley remarkably free from sulphur and phosphorus, and containing so small a percentage of titanium that it may be regarded as advantageous rather than injurious. These bog iron ores have been successfully used in charcoal blast furnaces at Radnor Forges and Drummondville for many years. Iron has never been made in Quebec province with coke as fuel. The province has many advantages for the manufacture of charcoal iron, but, while a very superior iron can be made with charcoal, the cost of manufacture is so much higher than when coke is used as fuel that it cannot be produced at a cost to compete with the coke-made product, except when required for special purposes for which iron of superior quality is essential. If the melting of iron by electricity should ever become an economic success in competition with the blast furnace using coke as fuel, Quebec province, with its numerous water-powers generating electricity, might become an important centre of iron manufacture. There are believed to be important deposits of iron in Ungava, both on the mainland and along the coast, and geologists think coal may also be found, but as the country is almost unexplored nothing definite can be stated about its mineral resources.

Iron ore is found over wide areas in Frontenac, Lanark, Renfrew, Leeds, Hastings, Peterborough and Haliburton counties, in the eastern part of Old Ontario, but most of the deposits are now believed to be merely pockets. Prospectors have been too ready to assume that when several deposits of ore are found in line with each other they must be outcrops of the same ore bed. There appear to be a great number of separate deposits, many of them containing considerable quantities of ore, but as yet no very extensive body of good ore has been proved to exist in that part of Ontario. However, the country has never been thoroughly prospected, and very little development work has been done. Magnetites are more common than hematites. Bog ore is reported to exist in Lanark county.

Considerable quantities of both magnetite and hematite iron ores were shipped to the United States a number of years ago, and very favourable reports of the quality of some of the ores were received from the smelting companies, but when the great iron ore beds on the Michigan shore of lake Superior were discovered these eastern Ontario

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mines were abandoned. It is difficult now to ascertain what was proved by these old-time mining operations. It is certain that in some cases the analysis showed the ores to be high in iron, low in both phosphorus and sulphur and free from titanium, but in other cases the ores were low grade and contained rather high percentages of sulphur, phosphorus or titanium. Some of the deposits seem to be irregular in quality, inferior ore being found in close proximity to first-class ore. It would probably be correct to say that in general the ores of eastern Ontario have a high percentage of iron, are low in phosphorus and titanium and rather high in sulphur, but that there are exceptions. In some sections the magnetite ores contain a large percentage of titanium.

It would be a mistake to assume too readily that no ore deposits of great value will be found in eastern Ontario. It is probable that a good deal of ore will be taken from some of the mines already opened, and development work in some of the localities yet unworked may reveal valuable ore beds.

Farther north, in Ontario, iron ore has been found at many points from lakes Timagami and Timiskaming to Sault Ste. Marie, but no important iron ore bodies have been proved to exist in this region east of Sudbury.

About thirty-five miles north of Sudbury, near the village of Sellwood, in the township of Hutton, is the much talked of Moose mountain iron range, which promises to yield very large quantities of low-grade magnetite. By crushing the ore fine and passing it through a Grondal magnetite separator a concentrate is evolved with a high percentage of iron, and very low in both phosphorus and sulphur. A large modern Grondal concentrating and briquetting plant with a capacity of 800 tons of crude ore per day has been installed. Cheap electric power is obtained from a waterfall a few miles away. A branch of the Canadian Northern railway carries the ore from the mines to Key Harbour, on Georgian bay.

The Atikokan iron range on the line of the Canadian Northern railway, about 130 miles west of Port Arthur, is believed to contain large quantities of magnetite high in sulphur and varying in phosphorus content from very low to rather high.

The Michipicoten mining district takes its name from the Michipicoten river, which empties into a large and beautiful bay of the same name on the north shore of lake Superior, directly opposite the Marquette iron district on the Michigan side of the lake, where nearly all the iron ore used in the blast furnaces of the Northern States is mined. Several deposits of iron ore have been discovered in the Michipicoten district. Some of the ore taken out has been low in both phosphorus and sulphur and contained a high percentage of iron, but the high-grade deposits appear to have been exhausted. The deposits of low-grade non-Bessemer ore seem to be much more extensive, and millions of tons of red hematite have been taken from the Helen mine, which is connected by a railway twelve miles long with large ore-shipping docks at Michipicoten harbour. Another mine of the district from which large quantities of ore have been taken is the Magpie, producing siderite, which is roasted before being shipped. Both these mines are operated by the Algoma Steel Company, a subsidiary company of the Lake Superior Corporation at Sault Ste. Marie.



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The fact that the population of the Prairie Provinces is not yet great enough to justify the manufacture of pig-iron and steel, and the great distance from any outside iron-making centre where iron ores could be sold, has prevented any systematic search for iron ores, but explorers have reported many indications of the existence of deposits of hematite, limonite and clay iron-stone in the northern part of Manitoba, Saskatchewan and Alberta.

On the mainland of British Columbia iron ore deposits have been reported at many points, including among others Kamloops, Kitchener, Bull Run and Bermis, but no development work has been done, and there is no information available regarding the extent and character of the deposits. On both the east and west coasts of Vancouver island and on the smaller islands between Vancouver island and the mainland there are many deposits of iron ore, some of which are merely pockets, but according to a report made by Mr. Einar Lindeman for the Mines Branch, Department of Mines, there are deposits of magnetite which appear to be of economic importance in the following localities: In the valley of the Gordon river, a few miles from Port San Juan on the west coast; at several places in the vicinity of Barclay sound on the west coast; at Head bay, Nootka sound, on the west coast; at Nimpkish river, a few miles from Alert bay on the northeast coast; in the vicinity of the Quinsam river, a tributary of the Campbell river which flows into the gulf of Georgia; and on Texada island between Vancouver island and the mainland. All these deposits are high in iron, very low in phosphorus and rather high in sulphur, but the sulphur could be roasted out. There are very large supplies of good limestone both on Texada island and Vancouver island, while none of these iron deposits is far distant from the coal mines of Vancouver island.

**Molybdenum and Tungsten.**—The war created a great demand for molybdenum and tungsten. The Mines Branch of the Department of Mines reports that shipments of molybdenite ores were made from at least seventeen different localities in Quebec, Ontario and British Columbia in 1916. The largest producers were the mines at Quyon, Pontiac county, Quebec, owned by the Canadian Wood Molybdenite Company, said to be the largest producers of molybdenite ore and concentrates in North America.

Important producers in Ontario were the Chisholm mine in Sheffield township, Addington county; the Spain mine in the township of Griffith, Renfrew county; and the Renfrew Molybdenum Mines, Mount St. Patrick, county of Renfrew. The Mines Branch of the Department of Mines perfected a system of concentrating molybdenite ores at their testing laboratories in Ottawa and by arrangement with the Imperial Munitions Board concentrates 100 tons of molybdenite ore weekly. The shipper of the ore is paid a fixed price in proportion to the molybdenum contents of the ore. The Canadian Wood Molybdenite Company have two concentrating mills, one at their mines and the other at Hull. There are also concentrating mills at Renfrew and Mount St. Patrick. Most of the concentrates are sent to the International Molybdenum Company at Orillia, Ontario, and to the Trivani Electric Steel Company at Belleville, Ont. At Orillia, ferro-molybdenum, molybdic acid and ammonium molybdate are produced; at Belleville only ferro-molyb-

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denum. The Imperial Munitions Board has been ready to purchase all molybdenum products at fixed prices.

Tungsten is being mined in New Brunswick on the southwest Miramichi river opposite Burnt Hill brook. The ore is wolframite. In Nova Scotia a mine at Scheelite, near Moose river, which was operated some years ago, was recently re-opened. The ore is scheelite. Tungsten is also found in scheelite ores in Beaver county, Quebec.

**Feldspar and Fluorspar.**—Deposits of feldspar believed to be extensive have been found in Ottawa county, Quebec, and one of the deposits yields a remarkably pure white feldspar which is used in the manufacture of artificial teeth. Excepting the mining of small quantities for this purpose these feldspar deposits are at present entirely neglected. At Quatachon Bay, opposite Anticosti island, extensive deposits of feldspar are reported. High-grade feldspar is produced in Frontenac county, Ontario. A large deposit of fluorspar has been discovered near Madoc in Hastings county.

**Kaolin or China Clay.**—Kaolin or china clay of superior quality is obtained near St. Remi de Amherst, in Argenteuil county, Quebec province. There are said to be very extensive deposits. Considerable quantities are being shipped to the United States. There is also kaolin in the Michipicoten district of Ontario, but it is of inferior quality.

**Magnesite.**—There are three companies mining magnesite in Grenville township, Argenteuil county, Quebec, and one in Atlin, B.C. The superintendent of the steel furnaces of the Steel Company of Canada at Hamilton, Ontario, states that the Canadian magnesite from Grenville, when mixed with ground basic open hearth slag, makes a furnace lining equal in every respect to that obtained from Austrian magnesite which was used before the war. The work of lining can be done more quickly than with Austrian magnesite.

**Amber Mica.**—Between the Gatineau river and the Rivière au Lièvre, two tributaries of the Ottawa, there are extensive deposits of amber mica or phlogopite especially suitable for use as an insulator in electrical apparatus. There are also extensive deposits of this amber mica on the Ontario side of the Ottawa river, and the deposits in these two Canadian districts are so far as known the only amber mica found in economic quantities outside of Ceylon. Amber mica is found in many localities of eastern Ontario in a district having an area of about 900 square miles. There are a number of mines producing small quantities of mica, the most important being in Frontenac county.

**Graphite.**—There are indications of graphite in Nova Scotia, in Guysborough, Colchester and Kings counties, but no deposits of commercial importance have yet been recorded. Graphite exists in the counties of St. John, Charlotte, Kings and Westmorland, New Brunswick, but the extent of the deposits is unknown. The St. John county deposits were worked on a small scale for some years, but working is said to have been abandoned on account of water getting into the shaft. Graphite mines are being operated in Ontario at Brougham in Renfrew county, Cardiff and Monmouth in Hastings county, and North Elmsley in Lanark county. The graphite is prepared for the market in mills located near the mines. The quantity produced is not large. There are large quantities of graphite in the counties of Ottawa, Labelle and

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**Argenteuil.** The graphite occurs chiefly in the form of disseminated flakes, which often form a high percentage of the rock. A number of mills have been operated in the district. The late Dr. R. W. Ells, of the Canadian Geological Survey, who made a thorough investigation of these deposits and the method of treatment in the mills, reported that it has been clearly established that the graphite of this district, when treated in properly constructed mills, is eminently suitable for all purposes to which graphitic is usually applied, with the exception of fine pencil making. The graphite is said to be particularly adapted for the manufacture of crucibles when properly treated.

**Chromite.**—In the province of Quebec chromite is found in the counties of Brome, Megantic, Richmond, Wolfe and Gaspé. The deposits in the township of Coleraine, Megantic county, have been worked intermittently. A small quantity of chromite has been successfully manufactured into chrome steel by electric smelting at Buckingham. The present production of chromite in Canada is almost entirely in the vicinity of Thetford and Black Lake.

**Manganese.**—In Nova Scotia considerable quantities of manganese are being mined near New Run, Lunenburg county, and smaller quantities near Enon, Cape Breton. Manganese ores have been found in Hants and Colchester counties. In New Brunswick there are deposits in Kings, St. John and Albert counties, some of which are believed to be extensive.

**Mineral Pigments.**—There are many deposits of ochre in the counties to the north of the St. Lawrence river. Near the town of Three Rivers large quantities are dug, and deposits in Nicolet county, on the opposite side of the St. Lawrence, are also being worked. In New Brunswick experiments have shown that fine paints can be made from the stibnite deposits of Prince William, the chalcocite deposits at Dorchester in Westmorland county, the manganite at Mount Jordan in Kings county, the bog manganese at Mechanic's Settlement in Albert county, and the ferruginous clay of Chaplins' island, Northumberland county. It is believed that large quantities of such mineral pigments are obtainable in various parts of the province, furnishing materials for an important paint industry.

**Tin.**—Tin ore has been found near New Ross, Lunenburg county, Nova Scotia, and geological experts have reported rather favourably, but no development work has been done and it is not known whether there are sufficient quantities to be of commercial value. Discoveries of tin have been reported in several localities in British Columbia, but nothing very definite is known about them.

**Gypsum.**—Gypsum deposits of very fine quality are worked in Haldimand county, Ontario, along the banks of the Grand river. Gypsum of high grade occurs in large quantities in Nova Scotia, being found in Hants county, Cumberland county, Victoria county, Inverness county and Cape Breton county. At present the annual output is valued at about \$500,000. In New Brunswick gypsum is mined in Albert, Victoria, St. John, Westmorland and Kings counties, the most extensive deposits worked being those in the vicinity of Hillsborough in Albert county, where there are seven quarries, and large quantities are ground, calcined and shipped out in barrels.



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**Salt.**—Salt of superior quality is produced in Huron, Bruce, Middlesex, Lambton and Essex counties in the southwestern peninsula of Ontario, the principal plants being located at Windsor, Sarnia, Sandwich, Goderich, Clinton and Kincardine. Salt beds have been proved to underlie a territory 2,500 square miles in extent, fronting on the shore of lake Huron, between Kincardine and lake Erie, and reaching inland at its greatest breadth to a distance of about forty miles. In some cases the water naturally, in filtrating through the rock salt, produces a brine which is pumped up, but in many cases it is necessary to pour water into bore-holes sunk to the salt beds and pump it up again after it has dissolved the salt, forming a brine. Samples of salt produced at Goderich, Ontario, have been compared with samples of rock salt of Cheshire, England, the most productive salt field of Great Britain. An analysis of this English salt, in a report to the British House of Commons, showed that it contained eleven times more impurities than the Canadian salt contains. The purity of the Ontario salt makes it particularly suitable for the manufacture of caustic soda and bleaching powder. Salt springs have been found in Antigonish, Inverness, Cumberland and Hants counties, in Nova Scotia, but no attempt seems to have been made to utilize them. In the vicinity of the Slave and Athabaska rivers there are many salt-water springs, and witnesses before a committee of the Dominion Senate reported large quantities of rock salt in the vicinity of Fort McMurray on the Athabaska river. Mr. George A. Mulloy, in a report to the Forestry Branch of the Department of the Interior, said:

The water of the Salt river, a tributary of the Athabaska, is very salty. About ten miles from its mouth a district called the Salt Country is reached. Everywhere in this district the sloughs and creeks are saturated with salt, and in many places where small ponds have dried up the mud is covered with a thick deposit of salt. It permeates everything. Even the leaves of the trees when chewed up taste salty. To the south and southeast a great salt plain stretches. The ground is covered by a very rich growth of grass which does not seem to be affected by the salt.

**Natural Gas and Oil.**—There is an extensive natural gas field underlying the part of Ontario bordering on lake Erie and extending from the western end of lake Ontario to lake St. Clair and river St. Clair. At different points in this district new discoveries of gas are being made from time to time. At present there are gas wells in operation in Wentworth, Welland, Haldimand, Norfolk, Kent, Elgin and Lambton counties. The gas is of remarkably uniform quality throughout the district, being noted for the absence of carbon dioxide and for its high calorific value, which is estimated to be over 800 British thermal units. The cheapest artificial gas in Ontario is sold in Toronto, where the price is seventy cents per thousand for a gas with a calorific value of about 600 British thermal units. On the same basis of value per heat unit as Toronto artificial gas, it is estimated that the natural gas now consumed in Ontario is worth \$11,000,000 annually and that its use means the saving of a great quantity of coal. The natural gas is not only being piped to cities and towns, but is used in many farmhouses. Recently gas has been discovered in Russell county, at Bourget, about twenty-six miles from Ottawa. Petroleum has been discovered at many points in the southwestern peninsula of Ontario, but the most productive wells are in Lambton county, the Tilbury district in Kent county, and

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the Onondaga district in Brant county. In Albert county, New Brunswick, about eleven miles from Moncton, and in the adjoining part of Westmorland county, there is an extensive gas field. There are already a number of gas-producing wells, and new wells are being drilled. The city of Moncton is supplied with gas for light and power from these wells. Petroleum is also being pumped in this locality in small quantities. There are extensive beds of oil-bearing shales in both Albert and Westmorland counties, and it is proposed to establish a plant for the extraction of oil from these shales. It is believed that a plant having a capacity of treating 2,000 tons of shale per day will yield approximately 80,000 gallons of oil daily. The oil is of good quality. Natural gas has been discovered in St. Hyacinthe county, Quebec, about eight miles from the city of St. Hyacinthe and thirty-five miles from Montreal, and several wells have been drilled with promising results. There are indications of gas in many other parts of the St. Lawrence valley, but whether it exists in large quantities or not is as yet uncertain.

In a district extending on both sides of the lower Athabaska river there are immense deposits of sand saturated with tar, which are supposed to have been produced by petroleum welling up from the underlying limestones. Dr. Robert Bell, of the Canadian Geological Survey, says: "At a temperature of sixty degrees F. the mass is sufficiently plastic to bend considerably before breaking. When cut with a knife the shavings or chips curl up like those of hard soap. When worked in the hand it becomes softened and may be moulded like putty and is quite brittle. In a fire of wood it soon ignites, burning for some time with a smoky flame and then falling to powder." Mr. Wyatt Malcolm, reporting to the Geological Survey, says of these tar sands: "The supply is almost inexhaustible. The beds vary in thickness from 140 to 220 feet, and although they have not been fully explored it has been estimated that they have a distribution of at least 1,000 square miles." Mr. R. G. McConnell, in a report to the Geological Survey, after describing these tar sands as of enormous extent, says: "The commercial value of the tar sands themselves as exposed at the surface is at present uncertain, but the abundance of the material and the high percentage of bitumen which it contains make it probable that it may in future be utilized for various purposes. Among the uses to which it is adapted may be mentioned roofing, paving, insulating electric wires; and it might also be mixed with lignite which occurs in the neighbourhood, and pressed into briquettes for fuel." The late Dr. R. W. Ells, in a report to the Geological Survey, and other authorities have expressed the opinion that oil could be recovered from the tar sands by distillation. However, the wide interest that has been taken in these famous tar sands has been due to the belief that there must be immense quantities of petroleum somewhere beneath them, but whether these expectations will be realized or not remains to be seen. Several wells have been drilled without results.

There are petroleum springs at several points in Great Slave lake, near the shore. The oil comes up to the surface of the water. At various points along the Peace river there are indications of oil. Geologists say the the prospects of finding large quantities of oil in northern Alberta are very good. In the Pincher creek district in southern Alberta, southwest of the town of Macleod, oil has been struck in several

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places, and it is claimed that a great oil field exists there, but the production of oil has been small up to the present time. A few miles south of the city of Calgary a light oil, about 90 p.c. gasoline, has been struck; a number of wells are being bored and great expectations have been aroused, but so far results have not been highly satisfactory. In drilling for oil near the mouth of the Pelican river, a tributary of the Athabaska, such a heavy flow of gas was struck at a depth of 820 feet that the roaring of it could be heard three miles away, and the work of drilling for oil had to be abandoned. Natural gas springs have been found at a number of points on the Peace and Athabaska rivers. There is a productive gas well near Wetaskiwin, about forty miles south of Edmonton, and gas is reported to have been struck at Tofield, on the Grand Trunk Pacific railway. In southern Alberta there are productive gas wells at a number of points in a wide district of which the city of Medicine Hat is the centre. In Medicine Hat itself the wells yield large quantities of gas, supplying the town with light and fuel both for domestic and industrial purposes. At Bow island, forty miles west of Medicine Hat, there are a number of productive wells from which gas is piped to Calgary, Lethbridge and other towns.

**Antimony.**—Antimony concentrates are obtained in small quantities at West Gore, in Hants county, Nova Scotia. In New Brunswick, antimony has been found in considerable quantities in the parish of Prince William, about twenty-five miles from Fredericton and three miles from the St. John river. The Canadian Antimony Company have a small reduction plant there. There is also antimony in Kings county. Some of the British Columbia silver-lead ores contain small quantities of antimony. In 1916 antimony was produced in small quantities at four mines in the Lillooet district: at Slocan, West Kootenay; at Togish lake, in the Atlin district; at Omineca, near Hazelton; and at Wheaton, in the Yukon territory.

**Other Minerals.**—There is a large body of talc near Madoc, in Hastings county, Ontario. Three mines are in operation, with grinding mills near the mines. Corundum of fine quality has been discovered at a number of points, within a belt seventy-five miles long, extending through Haliburton, Hastings and Renfrew counties in the province of Ontario. In Nova Scotia, tripolite or infusorial earth is found in Victoria, Inverness and Cumberland counties, but the only place where it is being taken out is at Bass River lake, in Cumberland county. In New Brunswick it covers the bed of the Pollet river lake and Pleasant lake in Kings county. Deposits of barytes are found in Nova Scotia in Colchester county, Pictou county and Inverness county, but the only deposits being mined are those in the vicinity of lake Ainslie, in Inverness county. There are a number of deposits in Lanark, Renfrew, Peterborough and Victoria counties in eastern Ontario; on Jarvis, McKellar and Pie islands in lake Superior; and in northern Ontario, near the Wanapitei river. Twenty-five or thirty years ago large quantities of mineral phosphate or apatite were produced in the vicinity of Buckingham, in the township of Ottawa. The deposits are extensive, but production has almost ceased, because the cost of extraction was found to be too



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high to compete with the phosphates of Florida and Tennessee, which can be cheaply mined with steam shovels.

The shale overlying the coal measures in the Grand Lake district, in New Brunswick, which has to be removed in mining the coal, is very suitable for the manufacture of highly finished facing brick, sewer pipe, mantels, and other vitrified products. It takes a very fine glaze, and becomes extremely hard. Treated in a different way it could be used for many purposes where a semi-refractory brick is called for, such as boiler settings, coke-oven blocks, stove linings, etc. At present it is a waste product, piled up in great dumps near the coal mines, but Mr. J. K. Keele, of the Canadian Geological Survey, submitted it to numerous tests with highly satisfactory results.

In Ontario there are a number of important pyrites deposits in Hastings county, and several mines are being operated. They are also found in many localities north of lake Superior, and are being mined in the Michipicoten district. Part of the ore is used in sulphuric acid plants in the province, and part exported to the United States.

Granite is quarried in Hastings, Leeds, Muskoka and Parry Sound, in Ontario; marble in Hastings and Lanark; sandstone in Carleton, Halton and Peel; trap rock in Peterborough county, near Bruce mines, on the north shore of lake Huron, and in the vicinity of Thunder bay; while slate has been found near New Liskeard, in the Nipissing district. In Nova Scotia granite is quarried near Halifax and at Nictau in Annapolis county. Very fine sandstones for building purposes are quarried in Cumberland and Pictou counties. New Brunswick is noted for its building stones. Granite is quarried near St. George's, Charlotte county, and at Hampstead, Queens county. Northumberland and Westmorland have sandstone quarries.

Discoveries of mercury have been reported at Field, in the mountains, and at Sechart, on the west coast of Vancouver island. Small quantities of mercury were mined some years ago at the western end of Kamloops lake. Small quantities of platinum have been recovered from many of the gold placer deposits in British Columbia. Clay for the manufacture of bricks is widely distributed throughout Canada. Fireclay suitable for the manufacture of firebricks has been found at Shubenacadie, in Hants county, Nova Scotia. Millstone grit is quarried in Pictou county, Nova Scotia, and manufactured into grindstones of excellent grades, ranging in size from very small stones to those used for the grinding of woodpulp, which weigh about two-and-a-half tons each. Grindstones are also manufactured in New Brunswick, in Westmorland, Gloucester and Northumberland counties, from millstone grit quarried in the neighbourhood of the works.

It is not pretended that this is a complete account of the minerals of Canada. In a new country of vast area discoveries are being made almost every day. Sometimes development work shows that the surface indications of mineral wealth were misleading. In other cases expectations are more than justified.

The writer has given a more complete description of the natural resources of the Dominion in the book "Canada the Country of the

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Twentieth Century," which was prepared according to the instructions of the Minister of Trade and Commerce for the purpose of giving business men who have never visited Canada a comprehensive but epitomized review of its agricultural, forest and mineral resources, its industrial and commercial development and its geographical relation to the markets of the world.

## II.—PHYSICAL CHARACTERISTICS OF CANADA.

### GEOGRAPHICAL FEATURES.

**General Formation.**—On the eastern coast of the North American continent the Appalachian range of mountains gives shape to the eastern coast of the United States and, extending into Canada, forms the Gaspé peninsula and the Maritime Provinces. Around Hudson bay is a V-shaped plateau constituting the Laurentian highland and extending from Labrador down to the St. Lawrence river and thence north-westward to the Arctic ocean. In the west are the Cordillera ranges of the Pacific coast, extending into British Columbia and the Yukon territory. They occupy a large area in Canada, and comprise several parallel ranges. In British Columbia they are over 400 miles in width, and consist of the coast range along the coast; the Rocky mountains, properly so called, and, between them, the Selkirk, Gold, Cariboo, Cassiar and other ranges. To the north of British Columbia lies the Yukon territory, including a great mountain area drained by the Yukon river and the Klondike valley, famous for its gold. West of the Canadian Yukon lies the United States territory of Alaska. Canada may further be conveniently divided into five sections: (1) the peninsula which in Canada includes Gaspé and the three Maritime Provinces; (2) the lowlands of southern Ontario and southern Quebec, with the Great Lakes and the Ottawa and St. Lawrence rivers draining the interior into the Atlantic ocean; (3) the Central plain; (4) the Laurentian highland; (5) the western Cordillera.

**Mountains.**—In the western Cordillera are found the highest mountain ranges and peaks of Canada. In the Yukon territory, and forming part of the St. Elias range, is mount Logan, 19,539 feet, the highest known point in Canada. In the Rocky mountains are many peaks rising to heights of 11,000 or 12,000 feet, and Mount Robson, 13,700 feet, in the Yellowhead pass, is the highest of that range. The Selkirk range contains heights of from 9,000 feet to over 11,000 feet.

**Waterways.**—The waterways of Canada constitute one of the most remarkable of its geographical features. East of the Rocky mountains the southern part of the Dominion slopes northeastward towards Hudson bay; and the rivers in the south flow eastward. Thus the Saskatchewan river, with its northern and southern branches, flows eastward into lake Winnipeg and thence northward by the Nelson river into Hudson bay. On the north the Great Plain has a northerly slope, and the Mackenzie river, with its tributaries, the Slave, Liard, Athabaska, and Peace rivers, flows into the Arctic ocean. The Mackenzie, exclusive of its tributaries, but including the Slave, Peace and Finlay rivers, of which it is the continuation, has a total length of 2,525

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miles. The Yukon river in the Yukon territory also flows northward, passing through Alaska into Behring strait after a course of 2,300 miles. In British Columbia, the Fraser, Columbia, Skeena, and Stikine rivers flow into the Pacific ocean.

**Drainage Basins.**—The large drainage basins of Canada are the Atlantic (554,000 square miles), the Hudson bay (1,486,000 square miles), the Arctic (1,290,000 square miles), the Pacific (387,300 square miles) and the gulf of Mexico (12,365 square miles). Table 1 gives a list of the river drainage basins, and Table 2 gives the lengths of the principal rivers with their tributaries and sub-tributaries.

1.—Drainage Basins of Canada.

Drainage Basins.	Area Drained.	Drainage Basins.	Area Drained.
<b>Atlantic Basin.</b>	Sq. miles.	<b>Hudson Bay Basin.—con.</b>	Sq. miles.
Hamilton.....	29,100	Churchill.....	115,500
Miramichi.....	5,400	Kazan.....	32,700
St. John.....	21,500	Dubawnt.....	58,500
St. Lawrence.....	309,500	<b>Total.....</b>	<b>1,486,000</b>
Saguenay.....	35,900		
St. Maurice.....	16,200	<b>Pacific Basin.</b>	
French.....	8,000	Yukon.....	145,800
Nipigon.....	9,000	Porcupine.....	24,600
Ottawa.....	56,700	Stewart.....	21,900
Lièvre.....	3,500	Pelly.....	21,300
Gatineau.....	9,100	Lewes.....	35,000
<b>Total.....</b>	<b>554,000</b>	White.....	15,000
<b>Hudson Bay Basin.</b>		Alsek.....	11,200
Koksoak.....	62,400	Taku.....	7,600
George.....	20,000	Stikine.....	20,300
Big.....	26,300	Naas.....	7,400
Eastmain.....	25,500	Skeena.....	19,300
Rupert.....	15,700	Fraser.....	91,700
Broadback.....	9,800	Thompson.....	21,800
Nottaway.....	29,800	Nechako.....	15,700
Moose.....	42,100	Blackwater.....	5,600
Abitibi.....	11,300	Chilcotin.....	7,500
Missinaibi.....	10,600	Columbia.....	39,300
Albany.....	59,800	Kootenay.....	15,500
Kenogami.....	20,700	<b>Total.....</b>	<b>387,300</b>
Attawapiskat.....	18,700		
Winisk.....	24,100	<b>Arctic Basin.</b>	
Severn.....	38,600	Backs.....	47,500
Nelson.....	370,800	Coppermine.....	29,100
Winnipeg.....	44,000	Mackenzie.....	682,000
English.....	20,600	Liard.....	1,700
Red.....	63,400	Hay.....	25,700
Assiniboine.....	52,600	Peace.....	117,100
Saskatchewan.....	158,800	Athabaska.....	58,900
N. Saskatchewan.....	54,700	<b>Total.....</b>	<b>1,290,000</b>
S. Saskatchewan.....	65,500		
Red Deer.....	18,300	<b>Gulf of Mexico Basin.....</b>	<b>12,365</b>
Bow.....	11,100		
Belly.....	8,900		

NOTE.—Owing to overlapping, the totals of each drainage basin do not represent an addition of the drainage areas as given. Tributaries and sub-tributaries are indicated by indentation of the names.



## GEOGRAPHICAL FEATURES.

## 2.—Lengths of Principal Rivers and Tributaries in Canada.

Names.	Miles.	Names.	Miles.
<b>Flowing into the Atlantic Ocean.</b>		<b>Flowing into the Hudson Bay— concluded.</b>	
Hamilton (to head of Ashuanipi).....	350	Winnipeg (to head of Firesteel).....	475
Natashkwan.....	220	English.....	330
Romaine.....	270	Saskatchewan (to head of Bow).....	1,205
Moisie.....	210	North Saskatchewan.....	760
St. Marguerite.....	130	South Saskatchewan (to head of Bow).....	865
St. John.....	390	Bow.....	315
Miramichi.....	135	Belly.....	180
St. Lawrence (to head of St. Louis).....	1,900	Red Deer.....	385
Manikugan.....	310	Churchill.....	1,000
Outarde.....	270	Beaver.....	305
Bersimis.....	240	Kazan.....	445
Saguenay (to head of Peri- bonka).....	405	Dubawnt.....	580
Peribonka.....	280	Severn.....	420
Mistassini.....	185	Winisk.....	295
Ashwamuchuan.....	165	Attawapiskat.....	465
Chaudiere.....	120	Albany (to head of Cat river)....	610
St. Maurice.....	325	Moose (to head of Mattagami)...	340
Mattawin.....	100	Mattagami.....	275
St. Francis.....	165	Abitibi.....	340
Richelieu.....	210	Missinaibi.....	265
Ottawa.....	685	Harricanaw.....	250
North.....	70	Nottaway (to head of Waswanipi)	400
Rouge.....	115	Waswanipi.....	190
North Nation.....	60	Rupert.....	380
Lièvre.....	205	Eastmain.....	375
Gatineau.....	240	Big.....	520
Coulonge.....	135	Great Whale.....	365
Dumoine.....	80	Leaf.....	295
South Nation.....	90	Koksoak (to head of Kaniapiskau)	535
Mississippi.....	105	Kaniapiskau.....	445
Madawaska.....	130	George.....	365
Petawawa.....	95		
Moir.....	60	<b>Flowing into the Pacific Ocean.</b>	
Trent.....	150	Columbia (total).....	1,150
Grand.....	140	Columbia (in Canada).....	465
Thames.....	135	Kootenay.....	400
French (to head of Sturgeon)...	180	Fraser.....	695
Sturgeon.....	110	Thompson (to head of North Thompson).....	270
Spanish.....	153	North Thompson.....	185
Mississagi.....	140	South Thompson.....	120
Thessalon.....	40	Chilcotin.....	145
Nipigon (to head of Ombabika)...	130	Blackwater.....	140
		Nechako.....	255
		Stuart.....	220
<b>Flowing into the Hudson Bay.</b>		Skeena.....	335
Nelson (to Lake Winnipeg).....	390	Nass.....	205
Nelson (to head of Bow).....	1,660	Stikine.....	335
Red (to head of lake Traverse).....	355	Alsek.....	260
Red (to head of Sheyenne).....	545	Yukon (mouth to head of Nisutlin)	1,765
Assiniboine.....	450	Yukon (Int. boundary to head of Nisutlin).....	655
Souris.....	450		
Qu'Appelle.....	270		

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## 2.—Lengths of Principal Rivers and Tributaries in Canada—concluded.

Names.	Miles.	Names.	Miles.
<b>Flowing into the Pacific Ocean—concluded.</b>		<b>Flowing into the Arctic Ocean—concluded.</b>	
Stewart.....	320	Liard.....	550
White.....	185	Fort Nelson.....	260
Pelly.....	330	Athabaska.....	765
Macmillan.....	200	Pembina.....	210
Lewes.....	338	Slave.....	265
<b>Flowing into the Arctic Ocean.</b>		Peace (to head of Finlay).....	1,065
Mackenzie (to head of Finlay)...	2,525	Finlay.....	250
Peel.....	365	Parnsnp.....	145
Arctic Red.....	230	Smoky.....	245
		Little Smoky.....	185
		Coppermine.....	525
		Backs.....	605

NOTE.—In the above table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

**St. Lawrence River System.**—Most important of the lakes and rivers in Canada is the chain of the Great Lakes with their connecting rivers, the St. Lawrence river and its tributaries. This chain is called the St. Lawrence River System. The Great Lakes, separating the province of Ontario from the United States and connected by a series of artificial canals with the St. Lawrence river, allow of access from the Atlantic ocean to the interior of the Dominion at Fort William and Port Arthur, twin cities situated at the head of lake Superior.

**The Great Lakes.**—Table 3 shows the length, breadth, areas and elevation above sea-level of each of the Great Lakes.

## 3.—Area and Elevation of the Great Lakes.

Lakes.	Length.	Breadth.	Area.	Elevation above Sea-level.
	Miles.	Miles.	Sq. Miles.	Feet.
Superior.....	354	162	31,800	602
Michigan.....	316	118	22,400	581
Huron.....	207	101	23,200	581
St. Clair.....	26	24	445	575
Erie.....	239	59	10,000	572
Ontario.....	193	53	7,260	246

Lake Superior, with its area of 31,800 square miles, is the largest body of fresh water in the world. As the international boundary between Canada and the United States passes through the centre of lakes Superior, Huron, Erie and Ontario, only half of the areas of these lakes given in the above statement is Canadian. The whole of lake Michigan is within United States territory. From the western end of lake Superior to the mouth of the St. Lawrence there is, with the aid of the

## GEOGRAPHICAL FEATURES.

canal system, a continuous navigable waterway. The total length of the St. Lawrence river from the head of the St. Louis river to the Pointes-des-Monts, at the entrance to the gulf of St. Lawrence, is 1,900 miles. The tributaries of the St. Lawrence, several of which have themselves important tributaries, include the Ottawa river, 750 miles long; the St. Maurice river, 400 miles long; and the Saguenay, 100 miles long.

**Other Inland Waters.**—In addition to the Great Lakes there are large bodies of inland water in other parts of Canada. Of these only the following principal lakes, with their respective areas, need be mentioned here: in Quebec, lake Mistassini (975 square miles); in Ontario, lake Nipigon (1,730 square miles); in Manitoba, lake Winnipeg (9,457 square miles); lake Winnipegosis (2,086 square miles) and lake Manitoba (1,817 square miles); in Saskatchewan, Reindeer lake (2,437 square miles); in Alberta, lake Athabaska (2,482 square miles). All these are within the boundaries of the provinces as at present constituted, and are exclusive of lakes situated in the Northwest Territories, as, for instance, the Great Bear lake (11,821 square miles) and the Great Slave lake (10,719 square miles) in the Mackenzie District.

Table 4 gives a list of the principal lakes of Canada by provinces, with the area of each in square miles. The table has been revised to correspond with the constitution of the provinces as altered by the Boundary Extension Act, 1912 (2 Geo. V. cc. 32, 40 and 45).

4.—Areas of Principal Canadian Lakes by Provinces.

Names of Lakes.	Areas.	Names of Lakes.	Areas.
	Square Miles.		Square Miles.
Nova Scotia—		Quebec (con.)—	
Bras d'Or.....	230	Kakabonga.....	65
Little Bras d'Or.....	130	Kaniapiskau.....	441
	360	Kipawa.....	117
New Brunswick—		Matapedia.....	16
Grand.....	74	Manouan.....	113
Quebec—		Mattagami.....	87
Abitibi, part.....	25	Megantic.....	14
Apiskigamish.....	392	Melville.....	1,298
Ashuanipi.....	319	Memphremagog, portion in	
Attikonak.....	331	Quebec.....	28
Aylmer.....	8	Menihék.....	112
Baskatong.....	171	Minto.....	735
Burnt.....	56	Mishikamau.....	612
Champlain, portion in Quebec	3	Mishikamato.....	122
Chibouganau.....	138	Mistassini.....	975
Clearwater.....	478	Mistassinis.....	206
Evans.....	231	Nemiskau.....	56
Expanse.....	59	Nichikun.....	208
Gull.....	125	Nomining.....	9
Grand Victoria.....	57	Obatogamau.....	56
Great Long.....	245	Olga.....	50
Indian House.....	306	Ossokmanuan.....	131
Ishimanikuagan.....	87	Papineau.....	5
		Patamisk.....	44
		Payne.....	747



## PHYSICAL CHARACTERISTICS OF CANADA.

## 4.—Areas of Principal Canadian Lakes by Provinces—con.

Names of Lakes.	Areas.	Names of Lakes.	Areas.
	Square Miles.		Square Miles.
Quebec (con.)—		Ontario (con.)—	
Petitsikapau.....	94	St. Joseph.....	245
Pipmaukin.....	100	Saganaga, portion in Ontario.....	21
Pletipi.....	138	Sandy.....	245
Quinze, Lac des.....	46	Seul.....	392
Richmond.....	269	Simcoe.....	271
St. Francis, Beauce county..	13	Seugog.....	391
St. Francis river, St. Lawrence, part.....	59	Stony.....	19
St. John.....	350	Sturgeon, English river.....	106
St. Louis.....	56	Sturgeon, Victoria county.....	18
St. Peter.....	130	Superior, portion in Ontario.....	11,178
Sandgirt.....	106	Temagami.....	90
Simon.....	12	Timiskaming, part.....	52
Timiskaming, part.....	65	Trout English river.....	134
Temiscouata.....	29	Trout Severn river.....	233
Thirty-one Mile.....	23	Wanapitei.....	45
Two Mountains.....	63	Woods, lake of the, part in Ontario.....	1,325
Upper Seal.....	270		41,188
Wakonichi.....	44	Manitoba—	
Waswanipi.....	100	Atikameg.....	90
Whitefish.....	19	Cedar.....	284
	11,110	Cormorant.....	141
Ontario—		Dauphin.....	200
Abitibi.....	331	Dog.....	64
Bald.....	2	Ebb-and-flow.....	39
Balsam.....	17	Etawney.....	625
Buckhorn.....	14	Gods.....	319
Cameron.....	6	Granville.....	392
Couchiching.....	19	Island.....	551
Deer.....	7	Kiskitto.....	69
Dog.....	61	Kiskittogisu.....	122
Eagle.....	128	Manitoba.....	1,817
Erie, portion in Ontario.....	5,019	Moose.....	552
George, portion in Ontario.....	11	Nameu, part.....	12
Huron, including Georgian bay, portion in Ontario.....	14,331	North Indian.....	184
La Croix, portion in Ontario.....	23	Nuelin, part.....	76
Lansdowne.....	98	Playgreen.....	224
Long.....	75	Reed.....	86
Manitou, Manitou island.....	38	Red Deer, west of lake Winnipegosis.....	86
Mille Lacs, Lac de.....	104	Reindeer, part.....	134
Mud.....	13	St. Martin.....	125
Muskoka.....	54	Setting.....	58
Namakau, portion in Ontario.....	19	Shoal.....	102
Nipigon.....	1,730	South Indian.....	1,531
Nipissing.....	330	Swan.....	84
Ontario, portion in Ontario.....	3,727	Todatara, part.....	156
Panache.....	35	Waterhen.....	83
Pigeon.....	15	Wekusko.....	83
Rainy, portion in Ontario.....	260	Winnipeg.....	9,459
Rice.....	27	Winnipegosis.....	2,086
St. Clair, portion in Ontario.....	257	Woods, lake of the, part.....	60
St. Francis, river St. Lawrence, part.....	24		19,894

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## 4.—Areas of Principal Canadian Lakes by Provinces—concluded.

Names of Lakes.	Areas.	Names of Lakes.	Areas.
	Square Miles.		Square Miles.
Saskatchewan—		British Columbia—con.	
Amisk.....	111	Stuart.....	220
Athabaska, part.....	1,801	Tacla.....	135
Buffalo.....	281	Tagish, part.....	91
Candle.....	150	Teslin, part.....	123
Chaplin.....	66	Upper Arrow.....	99
Cree.....	406		
Cumberland.....	166		2,439
Dove.....	242		
Ile à la Crosse.....	187		
Johnston.....	131		
Last Mountain.....	98	Northwest Territories—	
Little Quill.....	70	Aberdeen.....	514
Manitou.....	67	Aylmer.....	612
Montreal.....	138	Baker.....	1,029
Nameu, part.....	54	Clinton-Colden.....	674
Plonge, Lac la.....	383	Dubawnt.....	1,654
Quill.....	163	Franklin.....	122
Red Deer on Red Deer river.....	97	Garry.....	980
Reindeer, part.....	2,302	Gras, Lac de.....	674
Ronge, Lac la.....	343	Great Bear.....	11,821
White Loon.....	97	Great Slave.....	10,719
Witchikan.....	70	Kaminuriak.....	368
Wollaston.....	906	Lower Seal.....	220
	8,329	Macedougall.....	318
		Maguse.....	490
		Martre, Lac la.....	1,225
		Mackay.....	980
Alberta—		Nueltin, part.....	230
Athabaska, part.....	1,041	Nutarawit.....	343
Beaver.....	89	Pelly.....	331
Biche, Lac la.....	125	Schultz.....	123
Buffalo.....	55	Thaolintoa.....	184
Claire.....	404	Todatara, part.....	52
Lesser Slave.....	480	Yathkyed.....	858
Pakowoki.....	72		
Sullivan.....	64		34,521
	2,360		
British Columbia—		Yukon—	
Adams.....	52	Aishihik.....	107
Atlin, part.....	331	Atlin, part.....	12
Babine.....	306	Kluane.....	184
Chilko.....	172	Kusawa.....	56
Harrison.....	122	Laberge.....	87
Kootenay.....	220	Marsh.....	32
Lower Arrow.....	64	Tagish, part.....	48
Okanagan.....	135	Teslin, part.....	123
Owikano.....	98		
Quesnel.....	147		649
Shuswap.....	124		
		Canada.....	120,924

## PHYSICAL CHARACTERISTICS OF CANADA.

**Islands.**—The northern and western coasts of Canada are skirted by clusters of islands. Those on the north are mostly within the Arctic circle. On the west, Vancouver and Queen Charlotte Islands are the largest and most important. On the east, besides the separate island colony of Newfoundland, there are the Cape Breton Island, forming part of the province of Nova Scotia, Prince Edward Island, forming one of the nine provinces of Canada, the Magdalen Islands and the island of Anticosti. To the south of Newfoundland are the two small islands of St. Pierre and Miquelon belonging to France. In lake Huron is the island of Manitoulin and the so-called Thirty Thousand Islands of Georgian Bay. In the St. Lawrence river, just below lake Ontario, are the picturesque Thousand Islands.

## ECONOMIC GEOLOGY IN CANADA, 1916.

By WYATT MALCOLM, Geological Survey, Ottawa.

The purpose of this paper is to present a brief review of the most important reports and articles published during the year 1916 that treat of the economic geology of Canada. It is hoped that this review will serve also to indicate to the reader where detailed information regarding different ore deposits may be obtained. The numbers appearing in brackets throughout this paper refer to the names of the publishers as listed at the end.

**Antimony.**—Brief descriptions of antimony deposits in Nova Scotia, New Brunswick, Quebec, British Columbia and Yukon appear in the Summary Reports for 1915 of the Geological Survey and the Mines Branch, Department of Mines.

**Chromite.**—A few notes on the occurrence of chromite in British Columbia appeared during the year (1 and 5). These are of interest because of the increased demand for chrome iron ore occasioned by war conditions.

**Clay and Shales.**—The results of investigations into the commercial value of clays and shales of Ontario, of the Moncton area, New Brunswick, and of southern Saskatchewan are described by J. Keele and N. B. Davis (2). Most of the shale deposits of the Moncton area are suitable for the manufacture of building brick, face brick, hollow blocks, roofing tile and field drain tile. In southern Saskatchewan there is an abundant supply of high-grade clays suitable for the manufacture of refractories, stoneware, Rockingham ware, white earthenware and materials for structural purposes. The occurrence of workable seams of lignite in the vicinity of these Saskatchewan clays is of great importance in their commercial development.

**Coal.**—The coal deposits of Graham island and of the Flathead area in British Columbia are described in two memoirs (1) by J. D. MacKenzie. On Graham island bituminous coal of Cretaceous age is found in two basins; in one basin there is a seam 8 feet thick and in another a seam 4 to 18 feet thick. In a portion of the Flathead area bituminous coal of good coking quality occurs. Seams 4, 7, 8, 25 and 36 feet thick are found in the Kootenay formation.



## ECONOMIC GEOLOGY IN CANADA.

**Copper.**—Some copper deposits in the Telkwa valley and vicinity, British Columbia, are described by J. D. MacKenzie and those of Highland Valley copper camp by C. W. Drysdale in the Summary Report of the Geological Survey for 1915. The same publication contains a short description, by E. L. Bruce, of the large body of sulphides discovered at Flin Flon lake north of Pas, Manitoba. The sulphides consist of chalcopyrite, galena, sphalerite, and pyrite. This deposit and another rich deposit of sulphide ore occurring on the west side of the middle arm of Schist lake, as well as other mineral deposits, were examined for the Manitoba Public Utilities Commission by R. C. Wallace and J. S. DeLury, and extracts from their report were published in various mining journals (6). "As a rule the sulphides occur in basic or intermediate volcanic rocks in close proximity to the younger granite. They have been formed as replacement deposits in zones of weakness, along fault planes or planes of brecciation. . . . The massive ore at the centre of the deposits is mainly copper pyrites, banded with zincblende. Toward the margins copper sulphide gives place to pyrite, which grades insensibly into unmineralized schist." At Schist lake the centre of the deposit consists of very high-grade copper ore, and in spite of the great difficulties of transportation, shipments were being made during the winter of 1916-17. The whole of northern Manitoba is underlain by rocks of pre-Cambrian age in which there are large areas that have not been prospected, and that are worthy of attention.

**Feldspar.**—Feldspar is a mineral that is used chiefly in the pottery industry and in the manufacture of sanitary and electrical ware and enamelled brick and tile. It is used also in the manufacture of enamel ware and opalescent glass, as a bond in emery and carborundum wheels, as poultry grit and as a covering for tar roofing papers. A small quantity is utilized in making abrasive soaps, and a few tons of high-grade feldspar are used in the manufacture of artificial teeth. In "Feldspar in Canada" (2), by Hugh S. de Schmid, are to be found descriptions of the leading known feldspar deposits of the country. These consist of dykes, and occur in great numbers in southern Ontario and Quebec. Feldspar is one of the chief potash minerals, and the discovery of an economic method of extracting the potash would probably lead to greatly increased mining operations.

**Gold.**—Early in the year a short report by P. E. Hopkins on the Kowkash area (3) appeared. This area attracted some attention because of the discovery of small quantities of gold in veins cutting greenstones of Keewatin age. Occurrences of native gold and of tellurides in quartz veins and veinlets in Keewatin greenstone and later intrusions of granite and porphyry in the Boston Creek district, Ontario, are described by A. G. Burrows and P. E. Hopkins (3). Notes are also given by the same writers on an occurrence of gold at Goodfish lake (3), two miles northeast of Kirkland lake, Ontario.

Extracts from a report by R. C. Wallace and J. S. DeLury on gold-bearing quartz veins on Herb lake in northern Manitoba appeared in several mining journals (6). E. L. Bruce (6) describes the most important vein discovered on Herb lake prior to the winter of 1914-15 as occurring in a zone of schist 200 feet wide in massive greenstone. It is

## PHYSICAL CHARACTERISTICS OF CANADA.

lenticular in form, varying from nine feet to two feet in width. Visible gold occurs in flakes along dark lines in the quartz or on fracture planes, and in places is seen in apparently unfractured quartz. Some notes by J. S. DeLury on the gold deposits of the Rice lake, Gold lake and Long lake areas, east of lake Winnipeg, appear in the *Canadian Mining Journal*, volume 37, pages 362-364, August 1, 1916.

In a paper by J. B. Tyrrell (6) on the gold occurring in North Saskatchewan river a description is given of the geology of the country through which the river flows, followed by a discussion of theories advanced to explain the source of the gold. He concludes that the fine gold in the river is derived from the Cretaceous rocks on its banks, and that these rocks were derived originally from the mountains west of the Upper Columbia valley.

Information regarding various gold deposits of British Columbia appears in the Annual Report of the Minister of Mines for that province for 1915. Attention might be called more particularly to J. D. Galloway's report on the Nelson mining district. A short report on the Bridge river deposits is given by C. W. Drysdale, and one on deposits in the Mayo and Wheaton areas, Yukon, by D. D. Cairnes in the Summary Report of the Geological Survey for 1915.

**Infusorial Earth.**—A deposit of infusorial earth occurring on Loon island lake, Liverpool river, Queens county, Nova Scotia, is reported on by E. R. Faribault (1). A map showing the areal extent and the thickness of the deposit at various points accompanies the report.

**Lead and Zinc.**—In a report entitled "Lead and Zinc Deposits in Ontario and in Eastern Canada" (3), W. L. Uglow presents in concise form the information that had been previously published on this subject and gives the results of much original investigation. In a report on the "Geology of Parts of the Townships of Montauban and Chavigny and of the Seigniorie of Grondines" (4), J. Austen Bancroft includes a detailed description of the zinc and lead deposits in the vicinity of Notre Dame des Anges, Portneuf county, Quebec. These deposits, which occur in rocks of pre-Cambrian age, are being worked at present.

The lead and zinc deposits of the Slocan, Fort Steele and Windermere mining divisions (5) are briefly described by J. D. Galloway. In a paper on the Ainsworth mining camp (6) S. J. Schofield describes the silver-lead deposits of Ainsworth. The district is underlain by a sedimentary series consisting of mica and hornblende schists with beds of limestone, quartzite and argillite; the sediments have been intruded by granite bodies. The ore is found in true fissure veins or as replacements in the limestone. Some fissure veins are parallel with the bedding planes while others are transverse. It is thought that the ore was deposited from solutions given off by the granite. The silver-lead deposits of the Mayo and Wheaton areas, Yukon, are described by D. D. Cairnes in the Summary Report of the Geological Survey for 1915.

**Limestone.**—Some of the results of investigations made into the nature of the limestones of Quebec are given by Howells Frechette (2). Chemical analyses of a great number of samples are published.

**Magnesite.**—Reference is made by C. W. Drysdale to the occurrences of magnesite associated with serpentinized peridotite in the

## ECONOMIC GEOLOGY IN CANADA.

Bridge River district, British Columbia (1). A report by G. A. Young on the hydromagnesite of Atlin mining district, British Columbia (1) may also be had. The hydromagnesite forms beds lying in depressions upon the surface of the earth with a clear-cut boundary between it and the underlying clay-like soil. There are several small areas, the largest of which is about eighteen acres. The thickness of the beds varies from one to five feet, and it is estimated that there are 180,000 tons of hydromagnesite. There is no over-burden to remove in mining operations, and the deposits are so situated that they can be easily drained. Magnesite when calcined is a high-grade refractory material, and all deposits are of particular interest in these days because the product of the Austrian deposits, the most important in the world, are available only to the central European powers.

**Molybdenum.**—Owing to the increased demand for molybdenum for steel manufacture occasioned by the war, much attention has been devoted to the molybdenite deposits of Canada, and a number of these are being mined. Descriptions of certain deposits and the results of milling tests of molybdenum ores are given by G. C. Mackenzie, W. B. Timm and C. S. Parsons (2).

A deposit of molybdenite occurring on Lost creek in the Nelson mining division is described by C. W. Drysdale. An ore zone about ten feet thick occurs in a body of granite a few feet from its contact with intruded sediments. In the ore zone the joint planes of the granite are closely spaced, interfinger, and lie generally about parallel to the contact. The molybdenite forms reticulating veinlets following the joint planes and impregnates the granite between the veinlets. Drysdale infers that the molybdenite is slightly younger than the enclosing granite, although from the same parent sources, and that it either accompanied or followed the intrusion of pegmatite dykes, which represent the last stages of crystallization of the granite magma.

**Nickel.**—A short paper by C. W. Knight published in the *Engineering and Mining Journal* of May 6, 1916, volume 101, pages 811-812, is an important contribution to the literature treating of the origin of the nickel-copper ores of the Sudbury district.

**Peat.**—The report on the "Investigation of the Peat Bogs and Peat Industry of Canada, 1913-14," by A. Anrep (2), is a profusely illustrated report containing descriptions of a number of peat bogs examined in Ontario, Quebec, Prince Edward Island and Nova Scotia. Diagrams are given showing the area of the bogs and the thickness of the peat.

**Phosphate.**—After the discovery of float phosphatic rock in the vicinity of Banff by the Commission of Conservation, a closer examination of the district was made by Hugh S. de Schmid, of the Mines Branch. A number of occurrences of phosphate in place were discovered in the upper part of the Rocky Mountain Quartzite (Pennsylvanian), but unfortunately none of these can be considered of economic importance. The results of de Schmid's investigations were published as Bulletin No. 12 of the Mines Branch (2).

**Road Materials.**—The first memoir published by the Geological Survey on road materials (1) appeared in 1916. This sets forth the results of field work conducted by L. Reinecke, in 1914, on the north



## PHYSICAL CHARACTERISTICS OF CANADA.

shore of lake Huron, in Essex and Kent counties, and on the north shore of lake Ontario from Hamilton to Port Hope. Attention is directed to the great quantity of diabase, one of the most valuable of road materials, found on the north shore of lake Huron, and to the fact that conditions are favourable for economical quarrying and transportation. Descriptions are given of gravel deposits occurring in Essex and Kent and near lake Ontario, and an estimate is made of the amount of material available. In the Summary Report of the Geological Survey for 1915 (1) many results of investigations carried on in 1915 in Ontario and Quebec are presented in tabular form.

**General.**—The Summary Reports of the Geological Survey and of the Mines Branch for 1915 contain many short descriptions that are of interest to the economic geologist. The annual reports of the departments of mines of the provinces are also of great value. The Mining Lands and Yukon Branch, Department of the Interior, published during 1916 a well illustrated report entitled "The Yukon Territory, its History and Resources." This report contains a great deal of valuable information regarding the mineral resources of Yukon. A paper by D. D. Cairnes on the "Economic Possibilities of Yukon" (6) also describes briefly the mineral resources of the territory.

**Exploration.**—During 1916 the results of certain explorations carried on in little known parts of the country were made public. Charles Camsell presented in a memoir (1) a description of the country along a route that lay between the middle of the north side of lake Athabaska and the mouth of Taltson river, which empties into Great Slave lake forty miles east of the mouth of Slave river. The only other white man known to have entered this country is Samuel Hearne, who passed through this section from west to east in the winter of 1771-1772. The results of explorations made by Charles Camsell in the northern interior of British Columbia, by F. J. Alcock in the Lower Churchill River region, by T. L. Tanton in the Harricanaw basin, and by H. C. Cooke on the headwaters of the Broadback and Nottaway rivers, were published in the Summary Report of the Geological Survey for 1915.

## SOURCE OF REPORTS AND ARTICLES REFERRED TO IN TEXT.

(1) Geological Survey, Ottawa. (2) Mines Branch, Department of Mines, Ottawa. (3) Bureau of Mines, Toronto, Ontario. (4) Mines Branch, Department of Colonization, Mines and Fisheries, Quebec, Que. (5) Department of Mines, Victoria, B.C. (6) Canadian Mining Institute, Ritz-Carlton Hotel, Montreal, Que.

### III.—AREA AND POPULATION.

**Area by Provinces and Territories.**—Table 1 shows the total area of the Dominion in land and water and the distribution into provinces and territories:

1.—Land and Water Area of Canada by Provinces and Territories.

Provinces.	Land.	Water.	Total Land and water.
	sq. miles.	sq. miles.	sq. miles.
Prince Edward Island.....	2,184	—	2,184
Nova Scotia.....	21,068	360	21,428
New Brunswick.....	27,911	74	27,985
Quebec.....	690,865	15,969	706,834
Ontario.....	365,880	41,382	407,262
Manitoba.....	231,926	19,906	251,832
Saskatchewan.....	243,382	8,318	251,700
Alberta.....	252,925	2,360	255,285
British Columbia.....	353,416	2,439	355,855
Yukon.....	206,427	649	207,076
Northwest Territories.....	1,207,926	34,298	1,242,224
<b>Total.....</b>	<b>3,603,910</b>	<b>125,755</b>	<b>3,729,665</b>

The water area is exclusive of Hudson bay, Ungava bay, the bay of Fundy, the gulf of St. Lawrence, and all other tidal waters, excepting that portion of the river St. Lawrence which is between Pointe-des-Monts in Saguenay and the foot of Lake St. Peter in Quebec.

**Increase of Population.**—According to the corrected returns of the fifth Census, the total population on June 1, 1911, was 7,205,643, representing an increase of 1,835,328 since the previous Census of April 1, 1901. For the period covered, the rate of increase, viz., 34.17 p.c., is the largest in the world, and is due to the heavy tide of immigration which set in with the beginning of the present century. The countries next in order, in respect of the percentage rates of increase during the same decade, are: New Zealand 30.5, the United

## AREA AND POPULATION.

States 21, Germany 15.2, Holland 14.8, Switzerland 13.2, Denmark 12.6, Belgium 10.9, Austria 9.3, United Kingdom 9.1, Hungary 8.5, Sweden 7.5, Italy and Norway 6.8 and France 1.6. Ontario and Quebec continue to be the most largely populated of the nine provinces, the former having 2,523,274 and the latter 2,003,232 inhabitants. None of the other provinces has yet reached half a million; but Saskatchewan has the third largest population with 492,432. All the provinces show an increase since 1901, excepting Prince Edward Island, where the population has decreased by 9,531, or 9.23 p.c. The Yukon and Northwest Territories, with relatively sparse populations, show decreases as compared with 1901. The greatest relative increase is in the western provinces, especially in Saskatchewan and Alberta. The population of Saskatchewan, 492,432, as compared with 91,279 in 1901, shows an increase of 401,153, or over 439 p.c. Alberta has grown from 73,022 in 1901 to 374,663 in 1911, an increase of 301,641, or 413 p.c. Manitoba, 455,614, shows an increase of 200,403 from 255,211, or 78.5 p.c., and British Columbia one of 213,823, or over 119 p.c., the population having grown from 178,657 in 1901 to 392,480 in 1911.

**Average Density.**—The average density of the population works out to 1.93 per square mile, calculated upon the total of 3,729,665 square miles, as shown in Table 1. This figure may be compared with the density per square mile of other new countries, as, for instance, the United States 30.69, the Argentine Republic 5.99, the Commonwealth of Australia 1.53, the Dominion of New Zealand 9.63 and Newfoundland 1.47. Prince Edward Island has a density of 42.91, Nova Scotia of 22.98, New Brunswick of 12.61, Ontario of 9.67, Manitoba of 6.18 and Quebec of 5.69. The other three provinces, Saskatchewan, Alberta and British Columbia, are each below 2 per square mile.

2.—Population of Canada by Provinces and Territories in the years 1871-81-91-1901-11.

Provinces.	1871.	1881.	1891.	1901.	1911.
Prince Edward Island.....	94,021	108,891	109,078	103,259	93,728
Nova Scotia.....	387,800	440,572	450,396	459,574	492,338
New Brunswick.....	285,594	321,233	321,263	331,120	351,889
Quebec.....	1,191,516	1,359,027	1,488,535	1,648,898	2,003,232
Ontario.....	1,620,851	1,926,922	2,114,321	2,182,947	2,523,274
Manitoba.....	25,228	62,260	152,506	255,211	455,614
Saskatchewan.....	—	—	—	91,279	492,432
Alberta.....	—	—	—	73,022	374,663
British Columbia.....	36,247	49,459	98,173	178,657	392,480
Yukon.....	—	—	—	27,219	8,512
Northwest Territories.....	48,000	56,446	98,967	20,129	18,481
<b>Totals for Canada....</b>	<b>3,689,257</b>	<b>4,324,810</b>	<b>4,833,239</b>	<b>5,371,315</b>	<b>7,206,643</b>



## POPULATION.

## 3.—Population of Canada by Provinces and Territories in 1871 and 1911 and increase in each decade from 1871 to 1911.

Provinces.	Popula- tion in 1871.	Increase in each decade 1871 to 1911.				Popula- tion in 1911.	Increase 1871 to 1911.
		1871 to 1881.	1881 to 1891.	1891 to 1901.	1901 to 1911.		
Pr. Ed. Island.	94,021	14,870	187	-5,819	-9,531	93,728	-293
Nova Scotia...	387,800	52,772	9,824	9,178	32,764	492,338	104,538
New Brunswick	285,594	35,639	30	9,857	20,769	351,889	66,295
Quebec.....	1,191,516	167,511	129,508	160,363	354,334	2,003,232	811,716
Ontario.....	1,620,851	306,071	187,399	68,626	340,327	2,523,274	902,423
Manitoba.....	25,228	37,032	90,246	102,705	200,403	455,614	430,386
Saskatchewan..	—	—	—	91,279	401,153	492,432	492,432
Alberta.....	—	—	—	73,022	301,641	374,663	374,663
Brit. Columbia.	36,247	13,212	48,714	80,484	213,823	392,480	356,233
Yukon.....	—	—	—	27,219	-18,707	8,512	8,512
Northwest Territories...	48,000	8,446	42,521	-78,838	-1,648	18,481	-29,519
<b>Totals....</b>	<b>3,689,257</b>	<b>635,553</b>	<b>508,429</b>	<b>538,076</b>	<b>1,835,328</b>	<b>7,206,643</b>	<b>3,517,386</b>

## 4.—Population of Canada by Provinces and Territories, 1901 and 1911.

Provinces.	1901.	1911.	Increase.	Increase. p.c.
Prince Edward Island.....	103,259	93,728	-9,531	-9.23
Nova Scotia.....	459,574	492,338	32,764	7.13
New Brunswick.....	331,120	351,889	20,769	6.27
Quebec.....	1,648,898	2,003,232	354,334	21.49
Ontario.....	2,182,947	2,523,274	340,327	15.58
Manitoba.....	255,211	455,614	200,403	78.52
Saskatchewan.....	91,279	492,432	401,153	439.48
Alberta.....	73,022	374,663	301,641	413.08
British Columbia.....	178,657	392,480	213,823	119.68
Yukon.....	27,219	8,512	-18,707	-68.73
Northwest Territories.....	20,129	18,481	-1,648	-8.18
<b>Totals for Canada.....</b>	<b>5,371,315</b>	<b>7,206,643</b>	<b>1,835,328</b>	<b>34.17</b>

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901.

Provinces and Districts.	POPULATION IN 1911.					
	Area in acres.	Male.	Female.	Total.	Per square mile.	Popula- tion in 1901.
<b>CANADA</b>	<b>2,386,985,395<sup>1</sup></b>	<b>3,821,995</b>	<b>3,384,648</b>	<b>7,206,643</b>	<b>1.93</b>	<b>5,371,315</b>
<b>Prince Edward Island.</b>	<b>1,397,991<sup>1</sup></b>	<b>47,069</b>	<b>46,659</b>	<b>93,728</b>	<b>42.91</b>	<b>103,259</b>
Kings.....	410,355	11,598	11,038	22,636	35.31	24,725
Prince.....	498,065	16,551	16,228	32,779	42.12	35,400
Queens.....	489,571	18,920	19,393	38,313	50.09	43,134

NOTE.—The totals of areas for Canada and the provinces and territories are as measured by a planimeter on the map, and embrace land and water; while those for districts are the totals of their respective subdistricts, and are land areas only, excepting, as may be indicated by footnotes, where large areas are unsurveyed and unoccupied.

NOTE.—The sign (—) denotes a decrease.

<sup>1</sup>By map measurement.

## AREA AND POPULATION.

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901—con.

Provinces and Districts.	Area in acres.	POPULATION IN 1911.				Population in 1901.
		Male.	Female.	Total.	Per square mile.	
<b>Nova Scotia.</b>	<b>13,713,920<sup>1</sup></b>	<b>251,019</b>	<b>241,319</b>	<b>492,338</b>	<b>22.98</b>	<b>459,574</b>
Annapolis.....	847,280	9,374	9,207	18,581	14.04	18,842
Antigonish.....	355,840	5,915	6,047	11,962	21.51	13,617
Cape Breton N. and Victoria.....	867,264	15,435	14,453	29,888	22.06	24,650
Cape Breton S....	462,016	28,853	24,499	53,352	73.90	35,087
Colchester.....	928,640	11,746	11,918	23,664	16.31	24,900
Cumberland.....	1,077,120	20,708	19,835	40,543	24.09	36,168
Digby.....	640,000	10,206	9,961	20,167	20.17	20,322
Guysborough.....	1,059,840	8,858	8,190	17,048	10.29	18,320
Halifax City and County.....	1,358,960	40,061	40,196	80,257	37.80	74,662
Hants.....	786,560	10,016	9,687	19,703	16.03	20,056
Inverness.....	910,600	13,079	12,492	25,571	18.15	24,353
Kings.....	552,960	10,995	10,785	21,780	25.21	21,937
Lunenburg.....	769,280	17,121	16,139	33,260	27.67	32,389
Pictou.....	719,360	18,213	17,645	35,858	31.90	33,459
Richmond.....	312,960	6,828	6,445	13,273	27.14	13,515
Shelburne & Queens	1,294,387	12,261	11,950	24,211	11.97	24,428
Yarmouth.....	549,604	11,350	11,870	23,220	27.04	22,869
<b>New Brunswick.</b>	<b>17,910,400<sup>1</sup></b>	<b>179,867</b>	<b>172,022</b>	<b>351,889</b>	<b>12.61</b>	<b>331,120</b>
Carleton.....	838,785	11,034	10,412	21,446	16.36	21,621
Charlotte.....	821,376	10,774	10,373	21,147	16.48	22,415
Gloucester.....	1,196,676	16,588	16,074	32,662	17.47	27,936
Kent.....	1,137,931	12,435	11,941	24,376	13.71	23,958
Kings and Albert..	1,345,110	15,470	14,815	30,285	14.41	32,580
Northumberland...	3,033,985	16,150	15,044	31,194	6.58	28,548
Restigouche.....	2,092,595	8,434	7,253	15,687	4.80	10,536
St. John City and County.....	394,163	26,082	27,490	53,572	86.98	51,759
Sunbury and Queens	1,618,742	8,986	8,130	17,116	6.77	16,906
Victoria and Madawaska.....	2,153,549	15,086	13,136	28,222	8.39	21,136
Westmorland.....	922,993	22,703	21,918	44,621	30.94	42,060
York.....	2,307,367	16,125	15,436	13,561	8.75	31,620
<b>Quebec.</b>	<b>225,198,561<sup>1</sup></b>	<b>1,011,502</b>	<b>991,730</b>	<b>2,003,232</b>	<b>5.69</b>	<b>1,648,898</b>
Argenteuil.....	501,355	8,657	8,109	16,766	21.43	16,407
Bagot.....	221,530	9,135	9,071	18,206	52.60	18,181
Beauce.....	1,210,266	26,035	25,364	51,399	27.18	43,129
Beauharnois.....	94,105	10,640	10,162	20,802	141.47	21,732
Bellechasse.....	417,690	10,632	10,509	21,141	32.39	18,706
Berthier.....	1,403,359	9,950	9,922	19,872	9.06	19,980
Bonaventure.....	2,216,550	14,379	13,731	28,110	8.12	24,495
Brome.....	312,422	6,871	6,345	13,216	27.07	13,397
Chambly and Vercheres.....	215,680	14,327	14,388	28,715	85.21	24,318
Champlain.....	6,353,248	23,293	19,465	42,758	4.31	32,015
Charlevoix.....	1,455,034	10,649	9,988	20,637	9.08	19,334
Chateaugay.....	169,779	6,647	6,675	13,322	50.22	13,583
Chicoutimi and Saguenay.....	87,795,034	32,729	30,612	63,341	0.46	48,291

<sup>1</sup>By map measurement.

## POPULATION.

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901—con.

Provinces and Districts.	Area in acres.	POPULATION IN 1911.				Popula- tion in 1901.
		Male.	Female.	Total.	Per square mile.	
<b>Quebec—con.</b>						
Compton.....	920,986	15,655	13,975	29,630	20.59	26,460
Dorchester.....	602,624	12,930	12,166	25,096	26.65	21,007
Drummond and Ar- thabaska.....	766,607	21,233	20,357	41,590	34.72	38,999
Gaspé.....	2,912,941	18,195	16,806	35,001	7.69	30,683
Hochelaga.....	1,784	36,707	38,342	75,049	26,918.58	56,919
Huntingdon.....	231,200	6,707	6,533	13,240	36.65	13,979
Jacques-Cartier...	73,803	32,737	32,286	65,023	563.86	26,168
Joliette.....	1,928,640	11,841	12,070	23,911	7.93	22,255
Kamouraska.....	664,006	10,619	10,269	20,888	20.13	19,099
Labelle.....	2,456,052	21,131	19,220	40,351	10.52	32,901
Laprairie and Napierville.....	204,288	9,937	9,398	19,335	60.57	19,633
L'Assomption.....	157,854	7,577	7,587	15,164	61.48	13,995
Laval.....	95,287	15,370	14,607	29,977	201.34	19,743
Lévis.....	173,977	14,319	14,594	28,913	106.35	26,210
L'Islet.....	494,596	8,538	7,897	16,435	21.27	14,439
Lotbinière.....	464,895	11,144	11,014	22,158	30.50	20,039
Maisonneuve.....	6,338	85,577	85,401	170,978	17,265.27	65,178
Maskinonge.....	1,881,600	8,265	8,244	16,509	5.62	15,813
Megantic.....	499,304	16,439	14,875	31,314	40.14	23,878
Missisquoi.....	240,140	8,893	8,573	17,466	46.55	17,339
Montcalm.....	2,698,120	7,066	6,796	13,862	3.30	13,001
Montmagny.....	403,286	8,729	8,627	17,356	27.54	14,757
Montmorency.....	1,367,654	6,606	6,609	13,215	6.18	12,311
Montreal-Ste. Anne	829	11,402	10,274	21,676	16,738.22	23,368
Montreal— St. Antoine.....	1,062	23,709	24,929	48,638	29,317.66	47,653
Montreal— St. Jacques.....	438	22,028	22,029	44,057	64,410.82	42,618
Montreal— St. Laurent.....	544	27,637	28,223	55,860	65,717.65	48,808
Montreal— Ste. Marie.....	621	27,282	27,628	54,910	56,608.25	40,631
Nicolet.....	400,690	15,077	14,978	30,055	48.01	27,209
Pontiac.....	12,747,098	15,634	13,782	29,416	1.48	25,722
Portneuf.....	952,832	15,336	15,193	30,529	20.51	27,159
Quebec Centre....	824	9,522	12,141	21,663	16,793.02	20,366
Quebec East.....	594	22,457	24,972	47,429	51,108.83	39,325
Quebec West.....	503	4,370	5,248	9,618	12,236.64	9,149
Quebec County....	1,746,239	12,858	12,986	25,844	9.48	22,101
Richelieu.....	141,602	10,332	10,354	20,686	93.50	19,518
Richmond and Wolfe.....	783,565	20,230	19,261	39,491	32.26	34,137
Rimouski.....	3,574,468	26,491	24,999	51,490	9.22	40,157
Rouville.....	155,505	6,609	6,522	13,131	54.12	13,407
St. Hyacinthe.....	177,671	10,633	11,709	22,342	80.48	21,543
St. John and Iber- ville.....	257,934	11,062	10,820	21,882	54.29	20,679
Shefford.....	363,008	12,145	11,831	23,976	42.27	23,628
Sherbrooke.....	152,064	11,648	11,563	23,211	97.69	18,426
Soulages.....	87,111	4,640	4,760	9,400	69.06	9,928



## AREA AND POPULATION.

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901—con.

Provinces and Districts.	Area in acres.	POPULATION IN 1911.				Popula- tion in 1901.
		Male.	Female.	Total.	Per square mile.	
Quebec—con.						
Stanstead.....	276,786	10,301	10,464	20,765	48.03	18,998
Temiscouata.....	1,155,961	18,650	17,780	36,430	20.17	29,185
Terrebonne.....	500,366	14,592	14,426	29,018	37.12	26,811
Three Rivers and St. Maurice.....	1,643,552	18,203	17,950	36,153	14.08	29,311
Two Mountains....	178,725	7,002	6,866	13,868	49.66	14,438
Vaudreuil.....	128,414	5,585	5,454	11,039	55.02	10,445
Wright.....	1,553,711	24,771	23,561	48,332	19.91	42,830
Yamaska.....	233,578	9,805	9,706	19,511	53.46	20,564
Quebecunorganized	—	1,332	734	2,066	—	2,405
Ontario.	166,951,636 <sup>1</sup>	1,299,290	1,223,984	2,523,274	9.67	2,182,947
Algoma E.....	31,433,370	28,938	15,690	44,628	0.91	25,211
Algoma W.....	14,248,389	17,948	10,804	28,752	1.29	17,894
Brant.....	213,905	9,735	9,524	19,259	57.62	18,273
Brantford.....	55,592	13,750	12,867	26,617	306.44	19,867
Brockville.....	175,919	8,990	9,541	18,531	67.42	18,721
Bruce N.....	608,608	12,166	11,617	23,783	25.00	27,424
Bruce S.....	447,655	13,284	12,965	26,249	37.53	31,596
Carleton.....	416,558	14,762	13,644	28,406	43.64	24,380
Dufferin.....	356,248	9,229	8,511	17,740	31.87	21,036
Dundas.....	245,199	9,048	9,117	18,165	47.43	19,757
Durham.....	402,549	13,617	12,794	26,411	42.00	27,570
Elgin E.....	232,014	9,002	8,595	17,597	48.54	17,901
Elgin W.....	228,849	13,469	13,246	26,715	74.72	25,685
Essex N.....	153,133	19,497	18,509	38,006	158.84	28,789
Essex S.....	299,222	15,070	14,471	29,541	63.18	29,955
Frontenac.....	1,021,380	11,492	10,452	21,944	13.75	24,746
Glengarry.....	305,660	10,608	10,651	21,259	44.51	22,131
Grenville.....	296,209	8,479	9,066	17,545	37.91	21,021
Grey E.....	440,356	10,145	9,505	19,650	28.57	23,663
Grey N.....	286,784	13,778	13,213	26,991	60.23	24,874
Grey S.....	365,885	9,725	9,525	19,250	33.67	21,053
Haldimand.....	313,203	11,045	10,517	21,562	44.18	21,233
Halton.....	232,120	11,535	10,673	22,208	61.23	19,545
Hamilton E.....	1,724	20,989	18,804	39,793	14,792.94	24,000
Hamilton W.....	2,266	18,644	18,635	37,279	1,053.08	28,634
Hastings E.....	826,504	13,075	11,903	24,978	19.34	27,943
Hastings W.....	660,205	15,437	15,388	30,825	29.89	31,348
Huron E.....	274,073	8,090	8,199	16,289	38.04	19,227
Huron S.....	298,535	9,764	9,744	19,508	41.82	22,881
Huron W.....	256,455	8,452	8,734	17,186	42.88	19,712
Kent E.....	265,336	12,137	11,561	23,698	57.16	25,328
Kent W.....	321,963	16,414	15,883	32,297	64.21	31,866
Kingston.....	2,266	9,825	10,835	20,660	5,836.16	19,788
Lambton E.....	351,140	11,267	10,956	22,223	40.51	26,919
Lambton W.....	368,363	14,901	14,208	29,109	50.58	29,723
Lanark, N.....	362,641	7,018	7,606	14,624	25.82	17,236
Lanark S.....	365,666	9,904	9,847	19,751	34.57	19,996
Leeds.....	399,876	9,157	9,065	18,222	29.14	19,254
Lennox and Adding- ton.....	748,654	10,131	10,255	20,386	17.42	23,346

<sup>1</sup>By map measurement.

## POPULATION.

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901—con.

Provinces and Districts.	Area in acres.	POPULATION IN 1911.				Popula- tion in 1901.
		Male.	Female.	Total.	Per square mile.	
<b>Ontario—con.</b>						
Lincoln.....	212,739	17,902	17,527	35,429	106.58	30,552
London.....	4,252	21,901	24,399	46,300	6,962.41	37,976
Middlesex E.....	264,718	10,666	10,148	20,814	50.32	20,228
Middlesex N.....	279,332	7,011	6,726	13,737	31.47	16,411
Middlesex W.....	242,994	8,164	8,050	16,214	42.70	18,079
Muskoka.....	1,014,650	11,204	10,029	21,233	13.39	20,901
Nipissing.....	20,206,767	43,284	30,846	74,130	2.35	23,349
Norfolk.....	405,927	13,702	13,408	27,110	42.74	29,177
Northumberland E.	280,737	10,307	9,620	19,927	45.44	21,495
Northumberland W.	170,007	6,356	6,609	12,965	48.80	13,055
Ontario N.....	323,086	8,797	8,344	17,141	33.95	18,390
Ontario S.....	222,523	12,263	11,602	23,865	68.64	22,018
Ottawa City.....	3,043	34,790	38,403	73,193	15,396.21	57,640
Oxford N.....	262,756	12,691	12,386	25,077	61.08	25,644
Oxford S.....	226,554	11,355	10,939	22,294	62.98	22,760
Parry Sound.....	2,514,109	14,460	12,087	26,547	6.76	24,936
Peel.....	299,849	11,644	10,458	22,102	47.18	21,475
Perth N.....	275,051	15,241	14,994	30,235	70.35	29,256
Perth S.....	262,281	9,677	9,270	18,947	46.23	20,615
Peterborough E....	570,479	8,028	7,471	15,499	17.39	16,291
Peterborough W...	354,437	12,936	13,215	26,151	47.23	20,704
Prescott.....	316,344	13,669	13,299	26,968	54.46	27,035
Prince Edward....	249,853	8,448	8,702	17,150	43.93	17,864
Renfrew N.....	676,998	12,091	11,526	23,617	22.32	24,556
Renfrew S.....	1,052,770	14,209	13,643	27,852	16.93	27,676
Russell.....	447,152	20,188	19,246	39,434	56.44	35,166
Simcoe E.....	338,805	18,324	16,970	35,294	66.67	29,845
Simcoe N.....	367,917	12,664	12,035	24,699	42.96	26,071
Simcoe S.....	357,508	12,621	12,439	25,060	44.86	26,399
Stormont.....	263,890	12,273	12,502	24,775	60.10	27,042
Thunder Bay and Rainy River....	46,450,167	42,293	24,956	67,249	0.93	28,987
Toronto Centre....	651	27,550	25,575	53,125	52,083.33	43,861
Toronto E.....	2,198	33,888	35,024	68,912	20,090.97	40,194
Toronto N.....	1,867	24,499	31,970	56,469	19,338.70	40,886
Toronto S.....	2,917	24,312	19,644	43,956	9,639.47	38,108
Toronto W.....	3,144	51,593	53,698	105,291	21,444.20	44,991
Victoria.....	1,813,908	19,068	17,431	36,499	12.89	38,511
Waterloo N.....	174,849	16,616	17,003	33,619	123.06	27,124
Waterloo S.....	155,271	14,475	14,513	28,988	119.47	25,470
Welland.....	247,849	22,272	19,891	42,163	108.87	31,588
Wellington N.....	371,496	11,366	10,926	22,292	38.40	26,120
Wellington S.....	280,882	16,265	15,935	32,200	75.36	29,526
Wentworth.....	289,257	17,724	16,910	34,634	76.63	26,818
York Centre.....	213,586	13,827	12,221	26,048	78.05	21,505
York N.....	275,554	11,456	10,959	22,415	52.05	22,419
York S.....	69,745	34,703	33,315	68,018	624.13	20,699
<b>Manitoba.</b>						
Brandon.....	47,188,298 <sup>1</sup>	250,056	205,558	455,614	6.18	255,211
Dauphin.....	1,864,902 <sup>2</sup>	22,127	17,607	39,734	13.64	25,047
Lisgar.....	13,193,249 <sup>2</sup>	24,384	19,616	44,000	2.14	22,631
Lisgar.....	1,093,197 <sup>2</sup>	12,304	11,197	23,501	13.76	24,736

<sup>1</sup>By map measurement.<sup>2</sup>Total land area.

## AREA AND POPULATION.

## 5.—Area and Population of Canada in 1911 by Provinces and Districts and Population in 1901—concluded.

Provinces and Districts.	Area in acres.	POPULATION IN 1911.				Population in 1901.
		Male.	Female.	Total.	Per square mile.	
<b>Manitoba—con.</b>						
Macdonald.....	2,392,612 <sup>2</sup>	19,984	15,857	35,841	9.59	23,866
Marquette.....	3,333,889 <sup>2</sup>	18,829	14,769	33,598	6.45	20,431
Portage la Prairie.	1,754,456 <sup>2</sup>	15,565	12,385	27,950	10.20	23,483
Provencher.....	3,610,628 <sup>2</sup>	21,732	18,961	40,693	7.21	24,434
Selkirk.....	11,444,171 <sup>2</sup>	28,879	24,212	53,091	2.97	24,021
Souris.....	2,469,244 <sup>2</sup>	16,142	12,907	29,049	7.53	24,222
Winnipeg City....	12,750	70,110	58,047	128,157	6,432.94	42,340
<b>Saskatchewan.</b>	<b>161,088,000</b>	<b>291,730</b>	<b>200,702</b>	<b>492,432</b>	<b>1.95</b>	<b>91,279</b>
Assiniboia.....	4,803,514	24,619	17,937	42,556	5.67	9,332
Battleford.....	34,889,994	28,734	18,341	47,075	0.86	6,171
Humboldt.....	7,489,869 <sup>2</sup>	30,405	21,790	52,195	4.45	2,166
Mackenzie.....	5,404,839 <sup>2</sup>	22,204	18,354	40,558	4.80	13,537
Moosejaw.....	21,664,196 <sup>2</sup>	55,101	32,624	87,725	2.59	5,761
Prince Albert.....	66,087,803 <sup>2</sup>	20,847	15,472	36,319	0.35	12,795
Qu'Appelle.....	3,429,965 <sup>2</sup>	20,053	15,555	35,608	6.64	17,178
Regina.....	5,075,695 <sup>2</sup>	44,478	26,078	70,556	8.90	7,703
Saltcoats.....	2,687,635 <sup>2</sup>	16,019	12,676	28,695	6.83	9,479
Saskatoon.....	4,230,970 <sup>2</sup>	29,270	21,875	51,145	7.74	7,157
<b>Alberta.</b>	<b>163,382,400<sup>1</sup></b>	<b>223,989</b>	<b>150,674</b>	<b>374,663</b>	<b>1.47</b>	<b>73,002</b>
Calgary.....	3,671,520 <sup>2</sup>	36,991	23,511	60,502	10.55	8,362
Edmonton.....	78,034,886 <sup>2</sup>	34,567	22,478	57,045	0.46	12,823
MacLeod.....	6,020,634 <sup>2</sup>	20,516	13,988	34,504	3.66	7,856
Medicine Hat.....	16,396,476 <sup>2</sup>	43,724	26,882	70,606	2.73	10,804
Red Deer.....	13,977,487 <sup>2</sup>	37,085	24,287	61,372	2.81	10,314
Strathcona.....	6,880,155 <sup>2</sup>	28,536	20,937	49,473	4.62	12,345
Victoria.....	36,890,843 <sup>2</sup>	22,570	18,591	41,161	0.71	10,518
<b>British Columbia.</b>	<b>227,747,200<sup>1</sup></b>	<b>251,619</b>	<b>140,861</b>	<b>392,480</b>	<b>1.09</b>	<b>178,657</b>
Comox-Atlin.....	91,680,886 <sup>2</sup>	30,969	11,294	42,263	0.30	21,457
Kootenay.....	17,290,420 <sup>2</sup>	33,974	16,798	50,772	1.88	31,962
Nanaimo.....	1,738,880 <sup>2</sup>	20,124	11,698	31,822	11.71	22,293
New Westminster	3,100,480 <sup>2</sup>	35,906	19,773	55,679	11.50	23,976
Vancouver City...	417,280 <sup>2</sup>	74,390	49,512	123,902	190.03	28,895
Victoria City.....	1,894 <sup>2</sup>	19,089	12,571	31,660	10,695.95	20,919
Yale and Cariboo..	111,956,530 <sup>2</sup>	37,167	19,215	56,382	0.32	29,155
<b>Yukon.</b>	<b>132,528,640<sup>1</sup></b>	<b>6,508</b>	<b>2,004</b>	<b>8,512</b>	<b>0.041</b>	<b>27,219</b>
<b>N.W. Territories.</b>	<b>1,229,878,400<sup>1</sup></b>	<b>9,346</b>	<b>9,135</b>	<b>18,481</b>	<b>0.010</b>	<b>20,129</b>

<sup>1</sup> By map measurement. <sup>2</sup> Total land area.



## POPULATION.

6.—Population of Cities and Towns having over 5,000 inhabitants in 1911,  
compared with 1871-81-91-1901.

Cities and Towns.	Provinces.	POPULATION.				
		1871.	1881.	1891.	1901.	1911.
Montreal <sup>1</sup> .....	Quebec.....	115,000	155,238	219,616	267,730	470,480
Toronto <sup>1</sup> .....	Ontario.....	59,000	96,196	181,215	208,040	376,538
Winnipeg <sup>1</sup> .....	Manitoba.....	241	7,985	25,639	42,340	136,035
Vancouver <sup>1</sup> .....	British Columbia..	—	—	13,709	27,010	100,401
Ottawa <sup>1</sup> .....	Ontario.....	24,141	31,307	44,154	59,928	87,062
Hamilton <sup>1</sup> .....	".....	26,880	36,661	48,959	52,634	81,969
Quebec.....	Quebec.....	59,699	62,446	63,090	68,840	78,710
Halifax.....	Nova Scotia.....	29,582	36,100	38,437	40,832	46,619
London.....	Ontario.....	18,000	26,266	31,977	37,976	46,300
Calgary.....	Alberta.....	—	—	3,876	4,392	43,704
St. John.....	New Brunswick.....	41,325	41,353	39,179	40,711	42,511
Victoria.....	British Columbia..	3,270	5,925	16,841	20,919	31,660
Regina.....	Saskatchewan.....	—	—	—	2,249	30,213
Edmonton.....	Alberta.....	—	—	—	2,626	24,900
Brantford.....	Ontario.....	8,107	9,616	12,753	16,619	23,132
Kingston.....	".....	12,407	14,091	19,263	17,961	18,874
Maisonneuve.....	Quebec.....	—	—	—	3,958	18,684
Peterborough.....	Ontario.....	4,611	6,812	9,717	11,239	18,360
Hull.....	Quebec.....	3,800	6,890	11,264	13,993	18,222
Windsor.....	Ontario.....	4,253	6,561	10,322	12,153	17,829
Sydney.....	Nova Scotia.....	—	1,480	2,427	9,009	17,723
Glace Bay.....	".....	—	—	2,459	6,945	16,562
Fort William.....	Ontario.....	—	—	—	3,633	16,499
Sherbrooke.....	Quebec.....	4,432	7,227	10,110	11,765	16,405
Berlin.....	Ontario.....	2,743	4,054	7,425	9,747	15,196
Guelph.....	".....	6,878	9,890	10,537	11,496	15,175
Westmount.....	Quebec.....	200	884	3,076	8,856	14,579
St. Thomas.....	Ontario.....	2,197	8,367	10,366	11,485	14,054
Brandon.....	Manitoba.....	—	—	3,778	5,620	13,839
Moosejaw.....	Saskatchewan.....	—	—	—	1,558	13,823
Three Rivers.....	Quebec.....	7,576	8,670	8,334	9,981	13,691
New Westminster	Brit. Columbia....	—	1,500	6,678	6,499	13,199
Stratford.....	Ontario.....	4,313	8,239	9,500	9,959	12,946
Owen Sound.....	".....	3,369	4,426	7,497	8,776	12,558
St. Catharines...	".....	7,864	9,631	9,170	9,946	12,484
Saskatoon.....	Saskatchewan.....	—	—	—	113	12,004
Verdun.....	Quebec.....	—	—	296	1,898	11,629
Moncton.....	New Brunswick...	600	5,032	8,762	9,026	11,345
Port Arthur.....	Ontario.....	—	—	—	3,214	11,220
Charlottetown...	P. E. Island.....	8,807	11,485	11,373	12,080	11,198
Sault Ste. Marie.	Ontario.....	879	780	2,414	7,169	10,984
Chatham.....	".....	5,873	7,873	9,052	9,068	10,770
Lachine.....	Quebec.....	1,696	2,406	3,761	5,561	10,699

<sup>1</sup>Population of the city municipality.

## AREA AND POPULATION.

6.—Population of Cities and Towns having over 5,000 inhabitants in 1911,  
compared with 1871-81-91-1901—con.

Cities and Towns.	Provinces.	POPULATION.				
		1871.	1881.	1891.	1901.	1911.
Galt.....	Ontario.....	3,827	5,187	7,535	7,866	10,299
Sarnia.....	".....	2,929	3,874	6,692	8,176	9,947
Belleville.....	".....	7,305	9,516	9,916	9,117	9,876
St. Hyacinthe.....	Quebec.....	3,746	5,321	7,016	9,210	9,797
Valleyfield.....	".....	1,800	3,906	5,515	11,055	9,449
Brockville.....	Ontario.....	5,102	7,609	8,791	8,940	9,374
Woodstock.....	".....	3,982	5,373	8,612	8,833	9,320
Niagara Falls.....	".....	-	2,347	3,349	5,702	9,248
Amherst.....	Nova Scotia.....	-	2,274	3,781	4,964	8,973
Sorel.....	Quebec.....	5,636	5,791	6,669	7,057	8,420
Nanaimo.....	Brit. Columbia.....	-	1,645	4,595	6,130	8,306
North Vancouver.....	".....	-	-	-	-	8,196
Lethbridge.....	Alberta.....	-	-	-	2,072	8,050
North Bay.....	Ontario.....	-	-	-	2,530	7,737
St. Boniface.....	Manitoba.....	-	1,283	1,553	2,019	7,483
Sydney Mines.....	Nova Scotia.....	-	2,340	2,442	3,191	7,470
Levis.....	Quebec.....	6,691	7,597	7,301	7,783	7,452
Oshawa.....	Ontario.....	3,185	3,992	4,066	4,394	7,436
Thetford Mines.....	Quebec.....	-	-	-	3,256	7,261
Fredericton.....	New Brunswick.....	6,006	6,218	6,502	7,117	7,208
Collingwood.....	Ontario.....	2,829	4,445	4,939	5,755	7,090
Lindsay.....	".....	4,049	5,080	6,081	7,003	6,964
Orillia.....	".....	1,322	2,911	4,752	4,907	6,828
Fraserville.....	Quebec.....	1,541	2,291	4,175	4,569	6,774
Yarmouth.....	Nova Scotia.....	2,500	3,485	6,089	6,430	6,600
Cornwall.....	Ontario.....	2,033	4,468	6,805	6,704	6,598
Barrie.....	".....	3,398	4,854	5,550	5,949	6,420
New Glasgow.....	Nova Scotia.....	-	2,595	3,776	4,447	6,383
Smiths Falls.....	Ontario.....	1,150	2,087	3,864	5,155	6,370
Joliette.....	Quebec.....	3,047	3,268	3,347	4,220	6,346
Prince Albert.....	Saskatchewan.....	-	-	-	1,785	6,254
Kenora.....	Ontario.....	-	-	1,806	5,202	6,158
Truro.....	Nova Scotia.....	-	3,461	5,102	5,993	6,107
St. Johns.....	Quebec.....	3,022	4,314	4,722	4,030	5,903
Portage la Prairie.....	Manitoba.....	-	-	3,363	3,901	5,892
Chicoutimi.....	Quebec.....	1,393	1,935	2,277	3,826	5,880
Spring Hill.....	Nova Scotia.....	-	900	4,813	5,178	5,713
Cobalt.....	Ontario.....	-	-	-	-	5,638
Pembroke.....	".....	1,508	2,820	4,401	5,156	5,626
Medicine Hat.....	Alberta.....	-	-	-	1,570	5,608
Strathcona.....	".....	-	-	-	1,550	5,579
North Sydney.....	Nova Scotia.....	-	1,520	2,513	4,646	5,418
North Toronto.....	Ontario.....	-	-	-	1,852	5,362
Welland.....	".....	1,110	1,870	2,035	1,863	5,318
Port Hope.....	".....	5,114	5,581	5,042	4,188	5,092
Cobourg.....	".....	4,442	4,957	4,829	4,239	5,074
Dartmouth.....	Nova Scotia.....	-	3,786	6,252	4,806	5,053

## POPULATION.

## 7.—Urban Population of Canada by Size Groups, 1901 and 1911.

In Cities and Towns of	1901.				1911.			
	Num- ber of Places	Popula- tion.	Per cent. of		Num- ber of Places	Popula- tion.	Per cent. of	
			Urban Pop.	Total Pop.			Urban Pop.	Total Pop.
Over 400,000.....	-	-	-	-	1	470,480	14.34	6.53
Between								
300,000 and 400,000	-	-	-	-	1	376,538	11.48	5.22
200,000 and 300,000	2	475,770	23.53	8.86	-	-	-	-
100,000 and 200,000	-	-	-	-	2	236,436	7.21	3.28
50,000 and 100,000	3	181,402	8.97	3.38	3	247,741	7.55	3.44
25,000 and 50,000	5	188,869	9.34	3.52	6	241,007	7.35	3.34
15,000 and 25,000	3	55,499	2.75	1.03	13	237,551	7.24	3.30
10,000 and 15,000	8	95,266	4.71	1.77	18	221,322	6.74	3.07
5,000 and 10,000	37	275,919	13.65	5.14	46	323,056	9.85	4.48
3,000 and 5,000	50	190,789	9.44	3.55	60	226,212	6.89	3.14
1,000 and 3,000	187	320,433	15.85	5.97	251	429,553	13.09	5.97
500 and 1,000	179	130,238	6.44	2.42	247	180,784	5.51	2.51
Under 500	-	107,614	5.32	2.00	-	90,284	2.75	1.25
Total.....	-	2,021,799	100.00	37.64	-	3,280,964	100.00	45.53

## 8.—Rural and Urban Population of Canada in 1901 and 1911 by Provinces, and increase or decrease in the decade.

Provinces.	POPULATION 1901.		POPULATION 1911.		INCREASE OR DECREASE.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
Prince Edward Island.	88,304	14,955	78,758	14,971	-9,546	15
Nova Scotia.....	330,191	129,383	306,210	186,128	-23,981	56,745
New Brunswick.....	253,835	77,285	252,342	99,547	-1,493	22,262
Quebec.....	992,667	656,231	1,032,618	970,614	39,951	314,383
Ontario.....	1,246,969	935,978	1,194,785	1,328,489	-52,184	392,511
Manitoba.....	184,738	70,473	255,249	200,365	70,511	129,892
Saskatchewan.....	73,729	17,550	361,067	131,365	287,338	113,815
Alberta.....	52,399	20,623	232,726	141,937	180,327	121,314
British Columbia.....	88,478	90,179	188,796	203,684	100,318	113,505
Yukon.....	18,077	9,142	4,647	3,865	-13,430	-5,277
Northwest Territories	20,129	-	18,481	-	-1,648	-
Canada.....	3,349,516	2,021,799	3,925,679	3,280,964	576,163	1,259,165

NOTE.—The sign minus (-) denotes a decrease.



## AREA AND POPULATION.

## 9.—Rural and Urban Population of Canada by Provinces and Sexes, 1911.

Provinces.	MALES.				FEMALES.			
	Rural.	Urban.	Total.	Excess of Rural over Urban.	Rural.	Urban.	Total.	Excess of Rural over Urban.
PrinceEdw'd Island.....	40,192	6,877	47,069	33,315	38,566	8,093	46,659	30,473
Nova Scotia.....	157,878	93,141	251,019	64,737	148,332	92,987	241,319	55,345
New Brunswick.....	131,599	48,268	179,867	83,331	129,743	51,279	172,022	69,464
Quebec.....	533,117	478,385	1,011,502	54,732	499,501	492,229	991,730	7,272
Ontario.....	639,850	659,440	1,299,290	-19,590	554,935	669,049	1,223,984	-114,114
Manitoba.....	141,912	108,144	250,056	33,768	113,337	92,221	205,558	21,116
Saskatchewan.....	212,522	79,208	291,730	133,314	148,545	52,157	200,702	96,388
Alberta.....	140,781	83,208	223,989	57,573	91,945	58,729	150,674	33,216
British Columbia.....	128,242	123,377	251,619	4,865	60,554	80,307	140,861	-19,753
Yukon.....	3,634	2,874	6,508	760	1,013	991	2,004	22
Northwest Territories	9,346	-	9,346	9,346	9,135	-	9,135	9,135
Canada..	2,139,073	1,682,922	3,821,995	456,151	1,786,606	1,598,042	3,384,648	188,564

NOTE.—The sign minus (−) denotes a decrease.

**Sex Ratios.**—The male population of Canada was returned as 3,821,995 and the female as 3,384,648; so that the excess of males over females is 437,347, which is in the ratio of 1.13: 1,—an excess percentage of 13,—or of 130 males per 1,000 females. Reciprocally the number of females per 1,000 males is 886, the deficiency of females as compared with males being greater in Canada than probably in any other country. Amongst other countries showing a similar female deficiency per 1,000 males are Ceylon (888), the Dominion of New Zealand (896), the Commonwealth of Australia (926), the Union of South Africa (941), the United States (943) and India (953). Excepting India and Ceylon, where female infanticide has prevailed, the countries named are new, and the proportions are affected by immigration in which the male element predominates. In England and Wales the number of females per 1,000 males was 1,068 both in 1911 and 1901, and only Norway shows a greater proportion, viz., 1,069. In other European countries the number of females per 1,000 males is: Scotland 1,063, Denmark 1,061, Sweden 1,046, Austria 1,036, France 1,033 (in 1901), Switzerland 1,031, Germany 1,026, Holland 1,021, Hungary 1,019, Belgium 1,017, Italy 1,010 (in 1901) and Ireland 1,004.

The proportions by provinces in Canada are shown in Table 10 for the two census years 1901 and 1911. For the latter year the number

## POPULATION.

of females per 1,000 males for each province was: British Columbia 560, Manitoba 622, Alberta 673, Saskatchewan 688, Ontario 942, New Brunswick 956, Nova Scotia 961, Quebec 980 and Prince Edward Island 991. It will be seen that the disparity is especially marked in the western provinces.

Table 11 shows the percentage proportion of females to males in the rural and urban divisions of the population, respectively, for the census year 1911. Amongst the rural population the female element is in defect for Canada by 16.48 p.c., but amongst the urban population it is so by only 5.05 p.c. The defect is most marked in the western provinces. Of the urban population, in two out of the three Maritime Provinces, in Quebec and in Ontario, there is actually an excess of the female population, such excess being as high as 17.68 p.c. in Prince Edward Island. But in the west the female deficiency is again apparent, though (except as regards Saskatchewan) not to the same extent as in the rural population.

10.—Population of Canada by Sexes, 1901 and 1911.

Provinces.	1901.			1911.		
	Males.	Females.	Excess of Males.	Males.	Females.	Excess of Males.
Prince Edward Island...	51,959	51,300	659	47,069	46,659	410
Nova Scotia.....	233,642	225,932	7,710	251,019	241,319	9,700
New Brunswick.....	168,639	162,481	6,158	179,867	172,022	7,845
Quebec.....	824,454	824,444	10	1,011,502	991,730	19,772
Ontario.....	1,096,640	1,086,307	10,333	1,299,290	1,223,984	75,306
Manitoba.....	138,504	116,707	21,797	250,056	205,558	44,498
Saskatchewan.....	49,431	41,848	7,583	291,730	200,702	91,028
Alberta.....	41,019	32,003	9,016	223,989	150,674	73,315
British Columbia.....	114,160	64,497	49,663	251,619	140,861	110,758
Yukon.....	23,084	4,135	18,949	6,508	2,004	4,504
Northwest Territories..	10,176	9,953	223	9,346	9,135	221
<b>Canada.....</b>	<b>2,751,708</b>	<b>2,619,607</b>	<b>132,101</b>	<b>3,821,995</b>	<b>3,384,648</b>	<b>437,347</b>

NUMBER OF FEMALES PER 1,000 MALES.

Provinces.	1901.	1911.	Provinces.	1901.	1911.
Prince Edward Island.....	987	991	Saskatchewan.....	847	688
Nova Scotia.....	967	961	Alberta.....	780	673
New Brunswick.....	963	956	British Columbia.....	565	560
Quebec.....	1,000	980	Yukon.....	179	308
Ontario.....	990	942	Northwest Territories....	978	977
Manitoba.....	643	622	<b>Canada.....</b>	<b>952</b>	<b>886</b>

## AREA AND POPULATION.

## 11.—Ratio of Females to Males in Rural and Urban Divisions, 1911.

Provinces.	Rural.	Urban.	Provinces.	Rural.	Urban.
	p.c.	p.c.		p.c.	p.c.
Prince Edward Island...	95.95	117.68	Saskatchewan.....	69.90	65.85
Nova Scotia.....	93.95	99.84	Alberta.....	65.31	70.58
New Brunswick.....	91.75	106.24	British Columbia.....	47.22	65.00
Quebec.....	93.69	102.89	Yukon.....	30.35	34.48
Ontario.....	86.73	101.46	Northwest Territories..	97.74	—
Manitoba.....	79.86	85.28	Canada.....	83.52	94.95

## 12.—Conjugal Condition of the people of Canada, classified as single, married, widowed, divorced, legally separated and not given, by Provinces, Census of 1911.

Provinces.	MALES.						
	Single.	Married.	Widow- ed.	Divorc- ed.	Legally separ- ated.	Not Given.	Total.
Prince Edward Isl'd.	30,216	15,266	1,513	7	5	62	47,069
Nova Scotia.....	156,643	86,277	6,891	38	37	1,133	251,019
New Brunswick.....	113,015	61,131	4,978	51	40	652	179,867
Quebec.....	637,113	342,933	26,064	134	401	4,857	1,011,502
Ontario.....	762,330	492,650	33,564	189	539	10,018	1,299,290
Manitoba.....	160,159	83,897	3,926	50	50	1,884	250,056
Saskatchewan.....	192,352	90,765	4,291	85	82	4,155	291,730
Alberta.....	147,587	70,706	3,385	106	53	2,152	223,989
British Columbia...	160,218	83,096	4,079	145	70	4,011	251,619
Yukon.....	4,672	1,623	169	31	7	6	6,508
N. W. Territories...	5,461	3,419	294	3	2	167	9,346
Canada.....	2,369,766	1,331,853	89,154	839	1,286	29,097	3,821,995

Provinces.	FEMALES.						
	Single.	Married.	Widow- ed.	Divorc- ed.	Legally separ- ated.	Not Given.	Total.
Prince Edward Isl'd.	28,162	15,138	3,279	8	10	62	46,659
Nova Scotia.....	139,958	84,008	16,440	36	55	822	241,319
New Brunswick.....	101,288	60,069	10,380	37	42	206	172,022
Quebec.....	608,366	334,564	46,658	169	511	1,462	991,730
Ontario.....	672,923	468,186	78,407	227	693	3,548	1,223,984
Manitoba.....	118,669	78,751	7,260	38	82	758	205,558
Saskatchewan.....	112,387	82,189	5,556	34	55	481	200,702
Alberta.....	83,026	62,710	4,509	37	60	332	150,674
British Columbia...	71,585	61,359	6,178	87	69	1,583	140,861
Yukon.....	834	1,012	135	18	4	1	2,004
N. W. Territories...	4,688	3,482	854	—	3	108	9,135
Canada.....	1,941,886	1,251,468	179,656	691	1,584	9,363	3,384,648



## POPULATION.

**Foreign-born Population.**—A special report issued by the Census and Statistics Office in 1915 gives the foreign-born population of Canada in 1911 as 752,732, which is 10.4 p. c. of the total population of 7,206,643. The report possessed special interest in consequence of the war, and Table 13, which is constructed from data contained therein, shows how the foreign-born population in Canada is distributed as between the present hostile, allied and neutral countries.

Tables 14 to 18 show the numbers of the foreign-born population of Canada in 1911 under a variety of classifications as to sex, year of arrival, province, birth-place and citizenship. Table 19 shows the numbers of the foreign-born population in cities of 15,000 and over. Although numerically the numbers of the foreign-born in Montreal and Toronto are greater than in any of the western cities, yet the proportions are considerably smaller, being 9.2 p.c. for Montreal and 8.8 p.c. for Toronto, as compared with 27.6 p.c. for Vancouver, 24.2 p.c. for Winnipeg, 22.6 p.c. for Regina, 22.5 p.c. for Edmonton and over 20 p.c. for Calgary and Victoria.

13.—Distribution of Foreign-born Population as between Hostile, Allied and Neutral Countries, 1911.

Hostile countries.		Allied countries.		Neutral countries.	
Austria-Hungary.	121,430	Belgium.....	7,975	Denmark.....	4,937
Germany.....	39,577	France.....	17,619	Iceland.....	7,109
Turkey and Syria	4,768	Italy.....	34,739	Norway and	
Bulgaria.....	1,666	Japan.....	8,425	Sweden.....	49,194
		Russia.....	89,984	Other countries..	15,568
		Finland.....	10,987		
		Rumania.....	7,991		
		China.....	27,083		
		United States....	303,680		
Total.....	167,441	Total.....	508,483	Total.....	76,808

The immigration records show that, for the fiscal years 1912 to 1915, 78,999 Austro-Hungarians and 17,626 Germans have entered the country. No statistics of departures are available. Of the total of 752,732 foreign-born persons in Canada, in 1911, 470,927, or 62.6 p.c., were males and 281,805, or 37.4 p.c., were females, the males amongst the foreign-born of hostile countries being for Austria-Hungary 77,562, for Germany 39,577 and for Turkey and Syria 3,523. The total number of foreign-born who have become naturalized British subjects in Canada is 344,557, or nearly 46 p.c. of the total foreign-born. Persons born in the enemy countries, but who have become naturalized in Canada, number for Austria-Hungary 60,949, or 50 p.c., for Germany 23,283, or 59 p.c., and for Turkey and Syria 1,889, or 39 p.c. Of the total foreign-born population, 303,680 were born in the United States. Of this number 152,308 were naturalized and 151,372 were still alien. Of the immigrant population born in the United States 136,720 were of British, 1,804 were of Austro-Hungarian and 45,374 were of German origin. Of these numbers, 70,527 of British origin, 813 of Austro-Hungarian origin, and 21,362 of German origin were naturalized.

## AREA AND POPULATION.

14.—Foreign-born Males, 21 years of age and over, by Citizenship and by Provinces, 1911.

Provinces.	Total males foreign-born.	Aggregate.		Naturalized.			Alien.		
		Num-ber.	Per cent of total males.	Num-ber.	Per cent of total males.	Per cent of males 21 and over.	Num-ber.	Per cent of total males.	Per cent of males 21 and over.
Prince Edward Island.....	473	161	34.04	101	21.35	62.73	60	12.69	37.27
Nova Scotia.....	6,679	4,451	66.64	1,518	22.72	34.10	2,933	43.92	65.90
New Brunswick.....	4,396	2,755	62.67	1,255	28.55	45.55	1,500	34.12	54.45
Quebec.....	42,647	29,822	69.93	13,042	30.58	43.73	16,780	39.35	56.27
Ontario.....	94,952	74,026	77.96	21,022	22.14	28.40	53,004	55.82	71.60
Manitoba.....	54,027	38,679	71.59	21,831	40.41	56.44	16,848	31.18	43.56
Saskatchewan.....	96,781	65,345	67.52	33,518	34.63	51.29	31,827	32.89	48.71
Alberta.....	87,780	59,799	68.12	26,787	30.52	44.79	33,012	37.60	55.21
British Columbia	80,500	68,963	85.67	12,188	15.14	17.67	56,775	70.53	82.33
<b>Total<sup>1</sup>.....</b>	<b>468,235</b>	<b>344,001</b>	<b>73.48</b>	<b>131,262</b>	<b>28.03</b>	<b>38.16</b>	<b>212,739</b>	<b>45.45</b>	<b>61.84</b>

<sup>1</sup>Exclusive of Yukon and Northwest Territories with total males (2,692) of unreported years of immigration of whom 2,522 were 21 years of age and over. Of the latter only 27 were reported naturalized.

15.—Foreign-born Male Population of Canada, 21 Years of Age and over, by Birth-place and Citizenship, 1911.

Country of Birth.	Males 21 years of age and over.			Country of Birth.	Males 21 years of age and over.		
	Naturalized.	Alien.	Total.		Naturalized.	Alien.	Total.
Europe—				Asia—			
Austria.....				China.....	2,144	21,442	23,586
Hungary....	23,846	33,904	57,750	Japan.....	1,491	5,208	6,699
Belgium.....	1,674	2,451	4,125	Turkey.....	1,074	1,813	2,887
Bulgaria and Rumania....	1,400	3,201	4,601	Other.....	76	212	288
Denmark.....	4,023	2,199	6,222	<b>Total, Asia...</b>	<b>4,785</b>	<b>28,675</b>	<b>33,460</b>
France.....	4,624	4,607	9,231	United States....	42,131	59,636	101,767
Germany.....	12,001	8,632	20,633	Other Countries..	476	951	1,427
Greece.....	353	1,628	1,981	<b>Total, Foreign born 21 years and over.....</b>	<b>131,289</b>	<b>215,234</b>	<b>346,523</b>
Holland.....	536	1,230	1,766				
Italy.....	4,232	20,141	24,373				
Norway and Sweden....	11,722	17,930	29,652				
Russia and Finland.....	18,478	27,540	46,018				
Other.....	1,008	2,509	3,517				
<b>Total, Europe</b>	<b>83,897</b>	<b>125,972</b>	<b>209,869</b>				

## POPULATION.

## 16.—Foreign-born Population of Canada by Sex and Year of Arrival, 1911.

Year of Arrival.	Total.	Male.	Female.	Male.	Female.
	No.	No.	No.	p.c.	p.c.
1909—June, 1911.....	202,159	136,000	66,159	67.3	32.7
1908.....	46,952	30,790	16,162	65.5	34.5
1907.....	55,947	35,768	20,179	63.9	36.1
1906.....	55,466	34,649	20,817	62.5	37.5
1901-1905.....	167,542	102,125	65,417	60.9	39.1
1896-1900.....	71,739	42,421	29,318	59.1	40.9
1891-1895.....	27,793	16,344	11,449	58.8	41.2
1890 and before.....	61,571	34,867	26,704	56.6	43.4
Total with year reported.....	689,169	432,964	256,205	62.8	47.2
Total with year not reported.....	63,563	37,963	25,600	59.7	40.3
Total for all years.....	752,732	470,927	281,805	62.6	37.4

## 17.—Foreign-born Population of Canada by Provinces, 1911, with year of Arrival.

Provinces.	Total foreign born, June, 1911.	Year of Arrival.					
		1906-June, 1911.	1901-1905.	1891-1895.	1896-1900.	1890 and before.	Year Un-known.
Prince Edward Island..	932	364	170	40	81	107	170
Nova Scotia.....	10,972	4,435	1,819	408	802	754	2,754
New Brunswick.....	8,134	2,077	1,026	328	548	1,275	2,880
Quebec.....	74,421	27,849	15,072	3,344	6,602	7,459	14,095
Ontario.....	148,764	71,239	23,752	5,552	9,449	27,617	11,155
Manitoba.....	95,688	35,040	27,920	4,792	14,166	8,807	4,963
Saskatchewan.....	162,610	83,560	44,105	4,277	15,353	4,860	10,455
Alberta.....	142,711	80,509	35,836	3,950	12,729	2,768	6,919
British Columbia.....	105,097	55,451	17,842	5,102	12,009	7,924	6,769
Yukon.....	3,316	Year of arrival not recorded.					3,316
Northwest Territories..	87	Year of arrival not recorded.					87
Total.....	752,732	360,524	167,542	27,793	71,739	61,571	63,563



## AREA AND POPULATION.

## 18.—Foreign-born Population of Canada by Country of Birth and by Provinces, 1911.

Country of Birth.	Prince Edward Island.	Nova Scotia.	New Brun- swick.	Mari- time Prov- inces.	Quebec.	Ontario.
<b>All foreign-born.....</b>	<b>932</b>	<b>10,972</b>	<b>8,134</b>	<b>20,038</b>	<b>74,421</b>	<b>148,764</b>
<i>Europe.....</i>	<i>79</i>	<i>5,217</i>	<i>2,052</i>	<i>7,348</i>	<i>41,191</i>	<i>86,967</i>
Austria-Hungary.....	—	1,252	91	1,343	3,860	15,555
Belgium.....	—	571	76	647	1,468	480
Bulgaria.....	—	46	99	145	216	1,020
Denmark.....	—	47	249	296	195	670
Finland.....	—	12	17	29	209	6,871
France.....	8	380	158	546	5,928	1,879
Germany.....	7	549	150	706	1,897	15,010
Greece.....	—	56	24	80	545	1,119
Holland.....	11	24	32	67	174	687
Iceland.....	—	5	—	5	5	145
Italy.....	12	711	282	1,005	6,386	16,411
Norway and Sweden.....	23	227	281	531	800	5,294
Russia.....	18	1,250	558	1,826	15,233	19,418
Rumania.....	—	19	12	31	3,697	1,220
Other.....	—	68	23	91	578	1,188
<i>Asia.....</i>	<i>19</i>	<i>540</i>	<i>257</i>	<i>816</i>	<i>2,844</i>	<i>5,388</i>
China.....	6	125	91	222	1,536	2,717
Japan.....	—	1	—	1	29	108
Turkey and Syria.....	13	393	159	565	1,132	2,297
Other <sup>1</sup> .....	—	21	7	28	147	266
United States.....	829	4,802	5,766	11,397	29,842	55,674
Other Countries <sup>2</sup> .....	5	413	59	477	544	735

Country of Birth.	Mani- toba.	Saskat- chewan	Alberta	British Colum- bia.	West- ern Prov- inces.	Yukon and North west Terri- tories.	Can- ada.
<b>All foreign-born.....</b>	<b>95,688</b>	<b>162,610</b>	<b>142,711</b>	<b>105,097</b>	<b>506,106</b>	<b>3,403</b>	<b>752,732</b>
<i>Europe.....</i>	<i>78,051</i>	<i>91,104</i>	<i>58,771</i>	<i>40,131</i>	<i>268,057</i>	<i>1,378</i>	<i>404,941</i>
Austria-Hungary.....	37,731	35,482	21,112	6,220	100,545	127	121,430
Belgium.....	2,284	1,271	1,007	803	5,365	15	7,975
Bulgaria.....	6	107	65	105	283	2	1,666
Denmark.....	593	982	1,380	763	3,718	58	4,937
Finland.....	159	537	1,019	2,103	3,818	60	10,987
France.....	3,146	2,940	1,843	1,246	9,175	91	17,619
Germany.....	4,294	8,300	6,102	3,054	21,750	214	39,577
Greece.....	64	40	97	683	884	12	2,640
Holland.....	730	628	1,136	379	2,873	7	3,808
Iceland.....	5,135	1,337	235	247	6,954	—	7,109
Italy.....	687	266	1,825	8,107	10,885	52	34,739
Norway and Sweden.....	5,292	13,834	12,106	10,850	42,082	487	49,194
Russia.....	16,375	23,084	10,011	3,976	53,446	61	89,984
Rumania.....	777	1,798	337	119	3,031	12	7,991
Other.....	778	498	496	1,476	3,248	180	5,285
<i>Asia.....</i>	<i>1,099</i>	<i>1,519</i>	<i>2,216</i>	<i>26,988</i>	<i>31,822</i>	<i>76</i>	<i>40,946</i>
China.....	844	1,160	1,784	18,819	22,607	1	27,083
Japan.....	19	58	244	7,894	8,215	72	8,425
Turkey and Syria.....	174	266	95	237	772	2	4,768
Other <sup>1</sup> .....	62	35	93	38	228	1	670
United States.....	16,326	69,628	81,357	37,548	204,859	1,908	303,680
Other Countries <sup>2</sup> .....	212	359	367	430	1,368	41	3,165

<sup>1</sup>Includes East Indies.<sup>2</sup>Includes West Indies.

## POPULATION.

## 19.—Foreign-born Population in Cities of 15,000 and over, 1911.

Cities.	Popu- lation June, 1911.	Num- ber.	Per cent of total.	Cities.	Popu- lation June, 1911.	Num- ber.	Per cent of total.
Montreal.....	470,480	43,188	9.2	Victoria.....	31,660	6,632	20.9
Toronto.....	376,538	33,131	8.8	Regina.....	30,213	6,830	22.6
Winnipeg.....	136,035	32,959	24.2	Edmonton.....	24,900	5,598	22.5
Vancouver.....	100,401	27,713	27.6	Brantford.....	23,132	2,020	8.7
Ottawa.....	87,062	5,243	6.0	Windsor.....	17,829	2,022	11.3
Hamilton.....	81,969	7,693	9.4	Sydney.....	17,723	2,124	12.0
London.....	46,300	2,316	5.0	Fort William....	16,499	4,746	28.7
Calgary.....	43,704	9,030	20.6	Kitchener.....	15,196	2,207	14.5

**Population of Military Age.**—Tables 20 to 22, compiled from the census records of 1911, relate to the male population of military age in Canada (excluding the Yukon and Northwest Territories); that is to say, of all ages from 18 to 45, both years included. Table 21, read horizontally, shows the percentage proportions for Canada and by provinces of the male population of military age that on June 1, 1911, were Canadian-born, British-born or foreign-born. The Canadian-born were 98.37 p.c. in Prince Edward Island, 93.42 p.c. in New Brunswick, 87.22 p.c. in Nova Scotia, or over 90 p.c. for the Maritime provinces as a whole. In Quebec the Canadian-born represents 87.44 p.c., in Ontario 70.57 p.c. In all the Western provinces the Canadian-born constitute less than one-half, being 40.62 p.c. in Manitoba, 38.51 p.c. in Saskatchewan, 30.46 p.c. in Alberta and 26.23 p.c. in British Columbia. British-born males are 18.38 p.c. of the total in Ontario, and from 24 to 34½ p.c. in the provinces west of the Great Lakes. Foreign-born males constitute the largest proportion in Alberta and British Columbia.

Table 22, read vertically, shows the percentage distribution by provinces of the Canadian-born, British-born and foreign-born males of military age. Of the Canadian-born population, Quebec contained 30.81 p.c. and Ontario 37.04 p.c. Of the British-born, Ontario contained nearly 35 p.c. and the four western provinces nearly 54 p.c. Of the foreign-born, 21.15 p.c. were in Ontario, 20.39 p.c. in British Columbia and over 47 p.c. in the middle west.

Table 20 gives in absolute numbers the male population of military age, classified according to nativity, by single years and by provinces.

## AREA AND POPULATION.

## 20.—Male Population of Canada 18 to 45 years of age, classified according to Nativity by Single Years and by Provinces, Census, 1911.

Ages.	Total 18 to 45	18	19	20	21	22	23	24	25	26
CANADA <sup>1</sup>	1,720,070	73,369	70,055	74,569	77,237	77,964	76,056	78,924	79,817	76,416
Canadian-born.....	1,109,383	56,285	52,470	52,869	53,458	51,690	49,234	49,263	47,519	45,561
British-born.....	306,377	6,847	7,575	9,256	11,329	12,369	13,178	14,822	16,020	15,772
Foreign-born.....	304,310	10,237	10,010	12,444	12,450	13,905	13,644	14,839	16,278	15,083
PRINCE EDWARD ISLAND	16,868	1,089	937	897	851	783	703	721	656	664
Canadian-born.....	16,592	1,073	922	883	839	772	695	709	644	655
British-born.....	157	6	10	8	4	5	6	5	9	5
Foreign-born.....	119	10	5	6	8	6	2	7	3	4
NOVA SCOTIA	98,493	5,091	4,751	4,697	4,466	5,535	4,161	4,217	4,152	3,820
Canadian-born.....	85,909	4,673	4,336	4,234	3,991	4,041	3,672	3,642	3,504	3,256
British-born.....	8,437	239	262	311	309	335	327	367	434	350
Foreign-born.....	4,147	179	153	152	166	159	162	208	214	214
NEW BRUNSWICK	68,710	3,906	3,551	3,513	3,100	3,030	2,827	2,912	2,724	2,701
Canadian-born.....	64,188	3,692	3,350	3,340	2,933	2,856	2,656	2,717	2,533	2,547
British-born.....	2,371	113	111	80	78	100	94	94	91	74
Foreign-born.....	2,151	101	90	93	89	74	77	101	100	80
QUEBEC	390,897	20,182	18,496	18,937	18,292	18,679	17,682	17,341	17,104	15,835
Canadian-born.....	341,783	18,681	17,047	17,288	16,681	16,683	15,754	15,232	14,566	13,715
British-born.....	23,066	566	587	638	736	852	882	972	1,111	1,014
Foreign-born.....	26,048	935	862	1,011	875	1,144	1,046	1,137	1,427	1,106
ONTARIO	582,246	25,399	24,550	24,983	26,482	25,498	24,796	25,951	25,623	24,811
Canadian-born.....	410,896	20,319	19,286	18,775	19,886	18,357	17,558	17,769	16,950	16,535
British-born.....	106,997	2,829	2,996	3,451	4,012	4,093	4,372	4,887	5,105	5,006
Foreign-born.....	64,353	2,251	2,268	2,757	2,584	3,048	2,866	3,295	3,568	3,270
MANITOBA	122,762	4,862	4,529	5,308	5,555	5,659	5,725	5,963	6,364	5,939
Canadian-born.....	49,868	2,664	2,410	2,515	2,659	2,457	2,434	2,297	2,413	2,145
British-born.....	39,806	867	993	1,365	1,581	1,768	1,887	2,116	2,290	2,261
Foreign-born.....	33,088	1,331	1,126	1,428	1,315	1,434	1,404	1,550	1,661	1,533
SASKATCHEWAN	158,907	5,380	5,520	6,620	7,426	7,719	7,857	8,368	8,575	8,313
Canadian-born.....	61,193	2,254	2,266	2,594	2,975	3,046	2,982	3,329	3,247	3,129
British-born.....	38,871	847	1,010	1,289	1,682	1,767	1,890	2,115	2,154	2,233
Foreign-born.....	58,843	2,279	2,244	2,737	2,769	2,906	2,985	2,924	3,174	2,951
ALBERTA	122,915	3,947	3,996	4,822	5,527	5,771	5,891	6,024	6,389	6,282
Canadian-born.....	37,446	1,323	1,284	1,546	1,707	1,700	1,786	1,746	1,826	1,800
British-born.....	31,954	653	743	918	1,291	1,444	1,584	1,689	1,789	1,847
Foreign-born.....	53,515	1,971	1,969	2,358	2,529	2,627	2,521	2,589	2,774	2,635
BRITISH COLUMBIA	158,272	3,513	3,725	4,792	5,538	6,290	6,414	7,427	8,230	8,051
Canadian-born.....	41,508	1,606	1,569	1,694	1,787	1,778	1,697	1,822	1,836	1,779
British-born.....	54,718	727	863	1,196	1,636	2,005	2,136	2,577	3,037	2,982
Foreign-born.....	62,046	1,180	1,293	1,902	2,115	2,507	2,581	3,028	3,357	3,290

<sup>1</sup> Exclusive of Yukon and Northwest Territories.



## POPULATION.

20.—Male Population of Canada 18 to 45 years of age, classified according to Nativity by Single Years and by Provinces, Census, 1911—con.

Ages.	27	28	29	30	31	32	33	34	35	36
CANADA <sup>1</sup>	72,579	77,034	63,275	82,855	55,941	63,004	53,781	53,398	63,822	51,166
Canadian-born	43,330	45,210	37,526	47,094	33,915	38,720	34,449	34,423	39,058	32,998
British-born	15,004	16,346	14,081	18,264	12,093	12,589	9,840	10,029	12,273	9,451
Foreign-born	14,245	15,478	11,668	17,497	9,933	11,695	9,492	8,946	12,491	9,161
PRINCE EDWARD ISLAND	560	599	569	658	472	524	439	508	563	460
Canadian-born	557	591	563	648	468	522	432	494	550	449
British-born	7	6	3	3	2	—	6	9	6	5
Foreign-born	2	2	3	7	2	2	1	5	7	6
NOVA SCOTIA	3,780	3,911	3,240	4,335	2,728	3,483	2,967	3,067	3,549	2,952
Canadian-born	3,239	3,268	2,742	3,622	2,365	3,008	2,560	2,699	3,019	2,534
British-born	36	424	324	452	276	314	269	261	341	282
Foreign-born	179	219	174	261	87	161	138	107	189	136
NEW BRUNSWICK	2,483	2,849	2,140	3,013	1,919	2,286	2,056	2,096	2,472	2,037
Canadian-born	2,319	2,627	1,978	2,732	1,787	2,149	1,918	1,955	2,258	1,903
British-born	90	124	94	112	80	81	73	67	99	77
Foreign-born	74	89	68	169	52	56	65	74	115	57
QUEBEC	15,422	16,212	13,376	16,907	11,762	13,640	12,943	12,009	13,682	11,508
Canadian-born	13,261	13,773	11,346	13,998	10,079	11,570	11,289	10,436	11,451	9,984
British-born	1,052	1,216	977	1,386	847	986	709	780	1,023	721
Foreign-born	1,109	1,223	1,053	1,523	836	1,084	945	799	1,208	803
ONTARIO	23,758	24,857	20,805	26,556	18,534	20,752	17,768	18,250	21,499	17,841
Canadian-born	15,664	16,058	13,684	16,600	12,639	14,230	12,422	12,918	14,669	12,631
British-born	4,987	5,313	4,704	6,011	3,954	4,169	3,415	3,529	4,128	3,396
Foreign-born	3,107	3,486	2,417	3,945	1,941	2,353	1,931	1,803	2,702	1,814
MANITOBA	5,447	5,872	4,675	6,542	4,104	4,562	3,830	3,698	4,583	3,490
Canadian-born	2,011	2,110	1,706	2,145	1,533	1,736	1,549	1,545	1,747	1,353
British-born	2,015	2,174	1,854	2,427	1,560	1,621	1,276	1,222	1,534	1,117
Foreign-born	1,421	1,588	1,115	1,970	1,011	1,205	1,005	931	1,302	1,020
SASKATCHEWAN	7,885	8,151	6,705	8,565	5,917	6,157	4,939	4,689	5,872	4,608
Canadian-born	3,042	3,004	2,562	3,191	2,267	2,464	1,939	1,876	2,198	1,738
British-born	2,005	2,190	1,989	2,363	1,719	1,602	1,218	1,230	1,445	1,171
Foreign-born	2,838	2,957	2,154	3,001	1,931	2,091	1,782	1,583	2,229	1,699
ALBERTA	5,835	6,287	5,095	6,847	4,387	4,830	3,762	3,856	4,744	3,632
Canadian-born	1,615	1,900	1,474	2,029	1,357	1,504	1,165	1,215	1,453	1,078
British-born	1,714	1,809	1,527	1,978	1,246	1,303	1,035	1,028	1,269	926
Foreign-born	2,506	2,578	2,094	2,840	1,784	2,023	1,562	1,613	2,022	1,628
BRITISH COLUMBIA	7,403	8,296	6,670	9,432	6,118	6,770	5,077	5,225	6,858	5,082
Canadian-born	1,622	1,879	1,471	2,129	1,420	1,537	1,175	1,291	1,713	1,328
British-born	2,772	3,090	2,609	3,532	2,409	2,513	1,839	1,903	2,428	1,756
Foreign-born	3,009	3,327	2,590	3,771	2,289	2,720	2,063	2,031	2,717	1,998

<sup>1</sup>Exclusive of Yukon and Northwest Territories.

## AREA AND POPULATION.

20.—Male Population of Canada 18 to 45 years of age, classified according to Nativity by Single Years and by Provinces, Census, 1911—concluded.

Ages.	37	38	39	40	41	42	43	44	45
CANADA <sup>1</sup>	45,873	52,869	42,356	60,509	35,947	44,063	35,361	35,856	45,530
Canadian-born.....	30,225	34,396	28,224	37,808	23,930	29,521	24,433	25,097	30,677
British-born.....	7,895	9,290	7,585	11,029	6,477	7,754	5,881	5,694	7,634
Foreign-born.....	7,753	9,183	6,547	11,672	5,540	6,788	5,047	5,065	7,219
PRINCE EDWARD ISLAND	467	502	432	603	398	474	391	428	514
Canadian-born.....	454	492	426	590	389	466	384	422	503
British-born.....	9	7	3	7	5	6	5	5	5
Foreign-born.....	4	3	3	6	4	2	2	1	6
NOVA SCOTIA	2,733	3,224	2,702	3,648	2,170	2,740	2,177	2,304	2,893
Canadian-born.....	2,410	2,819	2,385	3,133	1,871	2,361	1,922	2,059	2,544
British-born.....	230	276	219	348	240	271	185	194	235
Foreign-born.....	93	129	98	167	59	108	70	51	114
NEW BRUNSWICK	1,894	2,248	1,829	2,530	1,436	1,882	1,574	1,535	2,167
Canadian-born.....	1,767	2,102	1,696	2,354	1,321	1,767	1,467	1,434	2,030
British-born.....	63	83	67	86	67	69	60	57	87
Foreign-born.....	64	63	66	90	48	46	47	44	50
QUEBEC	10,735	12,201	9,813	13,183	7,854	10,298	8,256	8,478	10,070
Canadian-born.....	9,412	10,402	8,620	10,914	6,933	9,014	7,366	7,629	8,665
British-born.....	628	831	629	1,071	476	709	481	440	746
Foreign-born.....	695	968	564	1,198	445	575	409	409	659
ONTARIO	15,915	18,567	15,049	20,908	13,247	16,169	13,214	13,615	16,849
Canadian-born.....	11,508	13,282	10,779	14,399	9,736	11,802	9,864	10,233	12,343
British-born.....	2,838	3,450	2,959	4,069	2,473	3,015	2,361	2,431	3,044
Foreign-born.....	1,569	1,835	1,311	2,440	1,038	1,352	989	951	1,462
MANITOBA	3,000	3,537	2,715	4,220	2,427	2,762	2,268	2,209	2,917
Canadian-born.....	1,166	1,393	1,099	1,611	1,003	1,112	1,002	921	1,132
British-born.....	924	1,096	890	1,204	762	876	646	639	841
Foreign-born.....	910	1,048	726	1,405	662	774	620	649	944
SASKATCHEWAN	3,905	4,171	3,180	4,860	2,635	3,060	2,433	2,222	3,175
Canadian-born.....	1,464	1,522	1,252	1,813	953	1,110	929	839	1,208
British-born.....	996	1,019	757	1,085	682	769	554	463	627
Foreign-born.....	1,445	1,630	1,171	1,962	1,000	1,181	950	920	1,340
ALBERTA	2,974	3,480	2,792	3,996	2,391	2,642	2,003	2,062	2,651
Canadian-born.....	938	1,082	909	1,244	764	816	621	677	887
British-born.....	755	873	722	987	587	649	488	475	622
Foreign-born.....	1,281	1,525	1,161	1,765	1,040	1,177	894	907	1,142
BRITISH COLUMBIA	4,250	4,939	3,844	6,561	3,389	4,036	3,045	3,003	4,294
Canadian-born.....	1,106	1,302	1,058	1,750	960	1,073	878	883	1,365
British-born.....	1,452	1,655	1,339	2,172	1,135	1,390	1,101	987	1,427
Foreign-born.....	1,692	1,982	1,447	2,639	1,244	1,573	1,066	1,133	1,502

<sup>1</sup>Exclusive of Yukon and Northwest Territories.

## POPULATION.

21.—Percentage Proportion by Provinces of the Male Population 18 to 45 years of age which was Canadian-born, British-born or Foreign-born on June 1, 1911.

Province.	Canadian-born.	British-born.	Foreign-born.	Total.
Prince Edward Island.....	98.37	0.93	0.70	100.00
Nova Scotia.....	87.22	8.57	4.21	100.00
New Brunswick.....	93.42	3.45	3.13	100.00
Quebec.....	87.44	5.90	6.66	100.00
Ontario.....	70.57	18.38	11.05	100.00
Manitoba.....	40.62	32.43	26.95	100.00
Saskatchewan.....	38.51	24.46	37.03	100.00
Alberta.....	30.46	26.00	43.54	100.00
British Columbia.....	26.23	34.57	39.20	100.00
<b>Canada.....</b>	<b>64.49</b>	<b>17.82</b>	<b>17.69</b>	<b>100.00</b>

22.—Percentage Distribution by Provinces of the Canadian-born, British-born and Foreign-born Male Population, 18 to 45 years of age on June 1, 1911.

Province.	Canadian-born.	British-born.	Foreign-born.
Prince Edward Island.....	1.50	0.05	0.03
Nova Scotia.....	7.74	2.75	1.36
New Brunswick.....	5.79	0.77	0.71
Quebec.....	30.81	7.53	8.56
Ontario.....	37.04	34.93	21.15
Manitoba.....	4.49	12.99	10.87
Saskatchewan.....	5.51	12.69	19.34
Alberta.....	3.38	10.43	17.59
British Columbia.....	3.74	17.86	20.39
<b>Canada.....</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

**Population of the Prairie Provinces, 1916.**—The Census and Statistics Act, 1905, provided for the taking of a census of population and agriculture in Manitoba, Saskatchewan and Alberta in 1906 and in every tenth year thereafter, thus instituting, in connection with the general decennial census for all Canada, a quinquennial census of population and agriculture for the three Prairie Provinces. The quinquennial census of Manitoba, Saskatchewan and Alberta was therefore taken as for June 1, 1916, and the results are now in process of compilation and publication. In Table 23 are given the male and female population of Manitoba, Saskatchewan and Alberta (a) by provinces; (b) by the electoral districts constituted by the Representation Act, 1914 (4-5 Geo. V, c. 51); and (c) by cities, towns and villages, as compared with the population by sex for 1911 and by totals for 1901 and 1906. The total population of the three Prairie Provinces in 1916 is returned as 1,698,220, compared with 1,328,725 in 1911, 808,863 in 1906 and 419,512 in 1901. Thus the population in the three provinces has increased by 1,278,708, or 305 p.c., since the beginning of the century; by 889,357, or 110 p.c., during the last ten years; and by 369,495, or 28 p.c., during the five years ended 1916.



## AREA AND POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916.

Provinces.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
Manitoba.....	255,211	365,088	253,056	208,574	461,630	294,609	259,251	553,860
Saskatchewan.....	91,279	257,763	291,730	200,702	492,432	363,787	284,048	647,835
Alberta.....	73,022	185,412	223,989	150,674	374,663	277,256	219,269	496,525
<b>Total.....</b>	<b>419,512</b>	<b>808,863</b>	<b>768,775</b>	<b>559,950</b>	<b>1,328,725</b>	<b>935,652</b>	<b>762,568</b>	<b>1,698,220</b>
<b>Manitoba.</b>								
Districts—								
Brandon.....	25,047	34,375	22,127	17,607	39,734	22,270	18,836	41,106
Dauphin.....	12,617	19,425	12,787	10,624	23,411	15,454	13,160	28,614
Lisgar.....	26,899	27,587	13,634	12,344	25,978	14,781	13,280	28,061
Macdonald.....	17,324	19,331	11,492	9,310	20,802	11,846	9,792	21,638
Marquette.....	20,435	27,720	18,159	14,225	32,384	20,779	16,735	37,514
Neepawa.....	19,140	22,726	13,470	10,453	23,923	14,787	11,801	26,588
Nelson.....	2,359	5,020	6,291	5,682	11,973	9,684	6,774	16,458
Portage la Prairie.....	14,969	18,339	12,229	9,830	22,059	11,138	9,435	20,573
Provencher.....	14,129	19,861	13,142	11,134	24,276	14,232	12,039	26,271
Selkirk.....	16,443	23,469	17,819	14,781	32,600	26,457	23,056	49,513
Souris.....	22,634	27,709	15,082	12,051	27,133	15,748	12,464	28,212
Springfield.....	20,290	28,986	20,222	17,025	37,247	28,458	24,624	53,082
Winnipeg Centre.....	42,925	91,140	33,661	25,242	58,903	34,490	32,548	67,038
Winnipeg North.....			24,807	20,875	45,682	31,186	29,430	60,616
Winnipeg South.....			18,134	17,391	35,525	23,299	25,277	48,575
<b>Total.....</b>	<b>255,211</b>	<b>365,688</b>	<b>253,056</b>	<b>208,574</b>	<b>461,630</b>	<b>294,609</b>	<b>259,251</b>	<b>553,860</b>
<b>Cities—</b>								
Brandon.....	5,620	10,408	7,362	6,477	13,839	7,697	7,518	15,215
Portage la Prairie.....	3,901	5,106	3,118	2,774	5,892	2,978	2,901	5,879
St. Boniface.....	2,019	5,119	4,029	3,454	7,483	5,488	5,533	11,021
Winnipeg.....	42,340	90,153	71,406	61,629	136,035	82,227	80,773	163,000
<b>Towns—</b>								
Beausejour.....	—	—	459	388	847	465	414	879
Birtle.....	466	422	223	214	437	260	252	512
Boissevain.....	898	979	462	456	918	488	460	948
Carberry.....	1,023	1,111	431	447	878	453	478	931
Carman.....	1,439	1,530	635	636	1,271	696	730	1,426
Dauphin.....	1,135	1,670	1,510	1,305	2,815	1,608	1,592	3,200
Deloraine.....	320	856	398	410	808	400	378	778
Emerson.....	840	920	571	472	1,043	552	540	1,092
Gladstone.....	731	828	368	414	782	411	406	817
Grandview.....	—	—	379	258	637	353	255	608
Hartney.....	505	652	310	310	623	335	324	659
Killarney.....	585	1,117	484	526	1,019	491	498	989
Melita.....	485	784	357	333	690	452	382	834
Minnedosa.....	1,052	1,299	793	690	1,483	950	883	1,833
Morden.....	1,522	1,437	546	584	1,130	625	636	1,261
Morris.....	465	513	322	276	598	349	316	665
Neepawa.....	1,418	1,895	917	947	1,864	925	929	1,854
Oak Lake.....	—	—	223	226	440	226	242	468
Rapid City.....	529	738	280	300	580	323	335	658
Rivers.....	—	—	592	358	950	395	317	712
Russell.....	—	—	285	277	562	434	386	820
Selkirk.....	2,188	2,701	1,559	1,418	2,977	1,778	1,621	3,399
Souris.....	839	1,413	1,038	816	1,854	960	885	1,845
Stonewall.....	589	1,074	550	455	1,005	585	567	1,152
Swan River.....	—	—	311	263	574	281	281	562
The Pas.....	—	—	—	—	—	763	502	1,270
Transcona.....	—	—	—	—	—	1,849	1,507	3,356
Tuxedo.....	—	—	—	—	—	113	79	192
Virden.....	901	1,471	768	782	1,550	851	767	1,618

## POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Manitoba—concluded.</b>								
Villages—								
Cypress River.....	—	—	149	156	305	130	120	250
Elkhorn.....	—	525	308	266	574	291	247	538
Foxwarren.....	—	—	—	—	—	107	106	207
Gilbert Plains.....	125	436	286	256	542	301	278	579
Gimli.....	—	—	244	252	496	263	261	524
Gretna.....	666	646	258	261	519	285	269	554
Hamiota.....	—	—	265	300	565	312	320	632
Holland.....	—	—	177	184	361	232	204	436
Lyall.....	—	—	—	—	—	234	195	429
Manitou.....	617	717	322	317	639	327	332	659
Napinka.....	—	—	164	162	326	176	171	347
Pilot Mound.....	446	589	226	231	457	209	198	407
Plum Coulee.....	394	450	168	212	380	205	235	440
Reston.....	—	—	207	209	416	244	250	494
Roblin.....	—	—	—	—	—	203	186	389
Roland.....	—	—	207	226	433	223	214	437
Rossburn.....	—	—	—	—	—	157	156	313
Shoal Lake.....	—	—	311	280	591	332	310	642
St. Laurent.....	—	—	306	275	581	342	312	654
Wawanesa.....	—	—	188	187	375	166	177	343
Winkler.....	391	530	223	235	458	253	294	547
Winnipeg Beach.....	—	—	164	81	245	122	118	240
Winnipegosis.....	—	—	285	233	518	249	251	500
<b>Saskatchewan.</b>								
Districts—								
Assiniboia.....	9,053	28,710	18,345	13,630	31,975	20,373	15,886	36,259
Battleford.....	1,355	7,679	13,171	8,496	21,667	16,331	12,091	28,402
Humboldt.....	1,652	17,593	21,139	15,478	36,617	25,106	20,194	45,300
Kindersley.....	31	3,922	14,772	7,527	22,299	22,268	14,437	36,705
Last Mountain.....	1,575	16,449	19,629	13,464	33,093	23,551	18,058	41,609
Mackenzie.....	11,984	23,093	20,211	16,729	36,940	23,311	19,908	43,219
Maple Creek.....	1,473	3,488	12,322	7,408	19,730	28,126	19,424	47,550
Moosejaw.....	3,725	13,348	19,999	11,553	31,552	25,443	19,347	44,790
North Battleford.....	4,579	12,835	14,080	10,250	24,330	21,756	16,770	38,526
Prince Albert.....	16,644	22,946	20,116	15,723	35,839	23,413	19,267	42,680
Qu'Appelle.....	17,133	27,151	17,050	13,420	30,470	18,330	14,886	33,216
Regina.....	6,581	15,473	28,456	15,746	44,202	22,100	18,903	41,003
Saltcoats.....	10,874	24,983	18,012	14,301	32,313	19,909	16,727	36,636
Saskatoon.....	2,964	15,460	18,292	13,341	31,633	25,221	21,951	47,172
Swift Current.....	484	6,213	17,355	11,336	28,691	28,277	20,878	49,155
Weyburn.....	1,172	18,420	18,781	12,300	31,081	20,272	15,341	35,613
<b>Total.....</b>	<b>91,279</b>	<b>257,763</b>	<b>291,730</b>	<b>200,702</b>	<b>492,432</b>	<b>363,787</b>	<b>284,048</b>	<b>647,835</b>
<b>Cities—</b>								
Moosejaw.....	1,558	6,249	8,964	4,859	13,823	9,007	7,927	16,934
North Battleford.....	—	824	1,258	847	2,105	1,679	1,466	3,145
Prince Albert.....	1,785	3,005	3,727	2,527	6,254	3,397	3,039	6,436
Regina.....	2,249	6,169	19,767	10,446	30,213	13,655	12,472	26,127
Saskatoon.....	113	3,011	7,217	4,787	12,004	10,719	10,329	21,048
Swift Current.....	121	554	1,096	756	1,852	1,681	1,500	3,181
Weyburn.....	113	966	1,302	908	2,210	1,574	1,476	3,050
<b>Towns—</b>								
Alameda.....	104	333	159	123	282	164	140	304
Alsask.....	—	—	112	63	175	164	137	301
Arcola.....	129	652	414	380	794	451	401	852
Asquith.....	—	—	106	93	199	148	124	272
Assiniboia.....	—	—	—	—	—	419	300	719
Balgonie.....	79	329	200	168	368	118	103	221
Battleford.....	609	933	746	589	1,335	737	699	1,436
Biggar.....	—	—	186	129	315	475	355	830
Bredenbury.....	—	—	66	36	102	91	78	169

## AREA AND POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Saskatchewan—con.</b>								
Towns—con.								
Broadview .....	230	606	388	314	702	460	417	877
Canora .....	—	169	241	194	435	425	410	835
Carlyle .....	23	374	187	171	358	212	200	412
Carnduff .....	190	491	225	244	469	269	286	555
Caron .....	—	215	117	105	222	140	114	254
Craik .....	—	229	231	204	435	230	197	427
Davidson .....	—	520	215	174	389	284	229	513
Delisle .....	—	—	133	101	234	163	123	286
Duck Lake .....	301	439	193	186	379	241	218	459
Estevan .....	141	877	1,136	845	1,981	1,069	1,071	2,140
Fleming .....	160	260	144	126	270	170	140	310
Francis .....	—	141	154	109	263	123	99	222
Govan .....	—	—	238	152	390	270	230	500
Grenfell .....	452	677	364	345	709	472	401	873
Gull Lake .....	—	—	338	268	606	398	314	712
Hanley .....	—	568	219	162	381	210	158	368
Herbert .....	—	—	310	249	559	533	417	950
Humboldt .....	—	279	489	370	859	777	658	1,435
Indian Head .....	768	1,545	657	628	1,285	679	655	1,334
Kamsack .....	—	204	258	215	473	625	577	1,202
Kerrobert .....	—	—	231	89	320	307	264	571
Kindersley .....	—	—	276	180	456	433	337	770
Langham .....	—	249	207	182	389	183	169	352
Lanigan .....	—	—	226	166	392	197	175	372
Lemberg .....	—	365	165	138	303	215	195	410
Lloydminster (part) .....	—	389	235	206	441	260	234	494
Lumsden .....	134	461	400	295	695	309	306	615
Macklin .....	—	—	205	117	322	142	108	250
Maple Creek .....	382	687	481	455	936	590	550	1,140
Melfort .....	—	351	325	274	599	496	475	971
Melville .....	—	—	1,130	686	1,816	1,095	1,005	2,100
Milestone .....	—	244	249	187	436	249	201	450
Moosomin .....	868	1,152	590	553	1,143	683	646	1,329
Morse .....	—	—	166	124	290	249	203	452
Mortlach .....	—	127	132	87	219	265	191	456
Nokomis .....	—	—	201	173	374	278	230	508
Ogema .....	—	—	117	54	171	159	117	276
Outlook .....	—	—	449	236	685	319	294	613
Oxbow .....	230	527	303	327	630	353	325	678
Qu'Appelle .....	434	778	439	412	851	380	342	722
Radisson .....	—	156	163	142	305	220	218	438
Radville .....	—	—	147	86	233	354	267	621
Rosetown .....	—	—	220	97	317	438	293	731
Rosthern .....	413	918	608	564	1,172	597	603	1,200
Rouleau .....	—	304	307	282	679	269	226	495
Saltcoats .....	155	265	233	199	432	255	236	491
Scott .....	—	—	241	179	420	157	159	316
Shaunavon .....	—	—	—	—	—	490	407	897
Sintaluta .....	155	317	212	179	391	195	169	364
Strassburg .....	—	203	535	276	811	293	251	544
Sutherland .....	—	—	291	130	421	504	436	940
Vonda .....	—	174	157	111	268	175	148	323
Wadena .....	—	141	141	114	255	237	212	449
Wapella .....	397	459	263	222	485	233	208	441
Watrous .....	—	—	436	345	781	450	393	843
Watson .....	—	129	122	89	211	122	124	246
Whitewood .....	359	501	236	211	447	224	222	446
Wilkie .....	—	—	351	186	537	454	361	815
Wolseley .....	409	935	525	436	961	575	479	1,054
Wynyard .....	—	—	308	207	515	377	305	682
Yellowgrass .....	17	344	269	190	459	222	186	408
Yorkton .....	700	1,363	1,303	1,006	2,309	1,596	1,548	3,144
Zealandia .....	—	—	180	84	264	137	105	242
<b>Villages—</b>								
Abbey .....	—	—	—	—	—	71	30	101
Aberdeen .....	—	—	127	113	240	113	94	207
Abernethy .....	—	292	138	135	273	133	116	249



## POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Saskatchewan—con.	No.	No.	No.	No.	No.	No.	No.	No.
Villages—con.								
Adanac .....	-	-	39	34	73	39	39	78
Admiral .....	-	-	-	-	-	71	63	134
Allan .....	-	-	69	70	139	115	123	238
Amulet .....	-	-	35	28	63	24	23	47
Aneroid .....	-	-	-	-	-	147	104	251
Antler .....	34	80	80	58	138	89	62	151
Ardath .....	-	-	-	-	-	37	24	61
Atwater .....	-	-	29	28	57	35	43	78
Avonlea .....	-	-	-	-	-	146	108	254
Aylesbury .....	-	-	47	25	72	46	42	88
Balcarras .....	-	124	185	163	348	194	164	358
Bangor .....	-	-	-	-	-	58	52	110
Belle Plaine .....	-	-	50	32	82	29	22	51
Bengough .....	-	-	-	-	-	107	83	190
Bethune .....	-	-	-	-	-	113	84	197
Bienfait .....	-	-	-	-	-	147	98	245
Big River .....	-	-	377	139	516	446	251	697
Birch Hills .....	-	-	85	60	145	127	115	242
Birmingham .....	-	-	16	15	31	18	17	35
Bladworth .....	-	97	87	77	164	87	95	182
Blaine Lake .....	-	-	-	-	-	155	124	279
Borden .....	-	-	52	44	96	84	74	158
Bounty .....	-	-	42	17	59	51	28	79
Bradwell .....	-	-	-	-	-	43	28	71
Bridgeford .....	-	-	-	-	-	32	28	60
Briercrest .....	-	-	-	-	-	65	45	110
Brock .....	-	-	82	35	117	93	92	185
Broderick .....	-	-	80	50	130	68	52	120
Bromhead .....	-	-	-	-	-	106	81	187
Brooking .....	-	-	-	-	-	26	15	41
Brownlee .....	-	-	98	73	171	71	80	151
Bruno .....	-	-	22	15	37	68	50	118
B. Say Tab. ....	-	-	-	-	-	16	17	33
Buchanan .....	-	-	125	103	228	139	126	265
Bulyea .....	-	-	67	50	117	83	50	133
Cabri .....	-	-	-	-	-	236	146	382
Cadillac .....	-	-	-	-	-	88	74	162
Calder Sta. ....	-	-	39	21	60	85	65	150
Carievale .....	45	194	97	91	188	108	84	192
Central Butte .....	-	-	-	-	-	86	36	122
Ceylon .....	-	-	-	-	-	106	82	188
Chamberlain .....	-	-	37	34	71	83	55	138
Chaplin .....	-	-	-	-	-	101	70	171
Churchbridge .....	22	65	49	41	90	68	75	143
Clavet .....	-	-	26	11	37	17	12	29
Colgate .....	-	-	57	38	95	64	56	120
Colonsay .....	-	-	56	39	95	75	48	123
Conquest .....	-	-	-	-	-	136	85	221
Craven .....	7	83	38	39	77	50	57	107
Creelman .....	-	61	50	50	100	86	71	157
Cudworth .....	-	-	-	-	-	114	100	214
Cupar .....	-	162	130	93	223	141	115	256
Cut Knife .....	-	-	-	-	-	75	42	117
Dana .....	-	-	41	37	78	58	29	87
Delmas (parts) .....	-	-	38	30	68	49	49	98
Denholm .....	-	-	-	-	-	31	24	55
Denzil (parts) .....	-	-	30	22	52	47	43	90
Dilke .....	-	-	-	-	-	49	41	93
Dinmore .....	-	-	-	-	-	49	22	71
Disley .....	-	-	63	36	99	52	41	93
Dodsland .....	-	-	-	-	-	35	17	52
Dollard .....	-	-	-	-	-	48	33	81
Drake .....	-	-	42	24	66	61	44	105
Drinkwater .....	-	58	120	83	203	87	86	173
Druid .....	-	-	-	-	-	40	25	65
Dubuc .....	-	70	86	75	161	100	87	187
Dundurn .....	-	213	134	105	239	121	94	215
Duval .....	-	-	52	29	81	60	54	114

## AREA AND POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Saskatchewan—con.	No.	No.	No.	No.	No.	No.	No.	No.
Villages—con.								
Dysart.....	—	—	29	32	61	53	54	107
Earl Grey.....	—	92	86	68	154	144	112	256
East End.....	—	—	—	—	—	207	171	378
Edam.....	—	—	—	—	—	62	56	118
Edenwold.....	—	—	—	—	—	69	65	134
Elbow.....	—	—	129	92	221	167	137	304
Elfrs.....	—	—	64	39	103	88	65	153
Elrose.....	—	—	—	—	—	81	61	142
Elstow.....	—	—	69	45	114	68	62	130
Ermfold.....	—	—	—	—	—	61	31	92
Esterhazy.....	—	231	132	126	258	181	180	361
Eston.....	—	—	—	—	—	61	56	117
Estuary.....	—	—	—	—	—	107	89	196
Ettington.....	—	—	—	—	—	30	24	54
Expanse.....	—	—	—	—	—	89	79	168
Eyeabrow.....	—	—	120	62	182	125	120	245
Fairlight.....	—	—	55	41	96	67	43	110
Finwood.....	—	—	35	16	51	34	26	60
Fielding.....	—	—	37	40	77	53	45	98
Fillmore.....	—	156	113	74	187	112	105	217
Findlater.....	—	—	—	—	—	55	35	90
Flaxcombe.....	—	—	—	—	—	33	21	54
Foam Lake.....	—	—	125	60	185	128	127	255
Forget.....	—	200	149	118	267	143	135	278
Forres.....	—	—	—	—	—	95	67	162
Fort Qu'Appelle.....	241	170	165	120	285	150	145	295
Forward.....	—	—	92	49	141	36	31	67
Frobisher.....	—	137	54	66	120	90	93	183
Gainsboro.....	94	180	129	118	247	136	130	266
Girvin.....	—	—	23	16	39	43	38	81
Glenavon.....	—	—	80	50	130	72	64	136
Glen Ewen.....	—	117	92	76	168	126	89	215
Glenside.....	—	—	30	24	54	50	32	82
Goodeve.....	—	—	41	30	71	63	60	123
Goodwater.....	—	—	40	35	75	41	32	73
Grand Coulee.....	—	—	43	39	82	61	45	106
Gravelburg.....	—	—	—	—	—	267	196	463
Grayson.....	—	74	70	54	124	72	69	141
Griffin.....	—	—	65	44	109	71	69	140
Guernsey.....	—	—	102	73	175	71	58	129
Haford.....	—	—	—	—	—	98	69	167
Hague.....	62	213	156	144	300	142	140	282
Halbrite.....	—	272	129	110	239	122	106	228
Handel.....	—	—	—	—	—	13	10	23
Harris.....	—	—	65	41	106	111	97	208
Hawarden.....	—	—	78	48	126	96	75	171
Hazenmore.....	—	—	—	—	—	72	44	116
Herschel.....	—	—	—	—	—	48	23	71
Heward.....	—	173	75	57	132	78	69	147
Holdfast.....	—	—	—	—	—	90	77	167
Howell.....	—	—	63	49	112	65	98	163
Hubbard.....	—	—	20	25	45	42	38	80
Hudson Bay Jct.....	—	—	154	61	215	106	68	174
Hughton.....	—	—	—	—	—	50	30	80
Imperial.....	—	—	—	—	—	113	87	200
Invermay.....	—	—	55	38	93	53	54	107
Ituna.....	—	—	61	34	95	62	60	122
Jansen.....	—	—	35	28	63	54	57	111
Jasmin.....	—	—	69	61	130	26	25	51
Kandahar.....	—	—	—	—	—	58	40	98
Keeler.....	—	—	38	36	74	54	47	101
Kelfield.....	—	—	—	—	—	28	17	45
Kelliher.....	—	—	123	97	220	110	96	206
Kenaston.....	—	—	146	39	185	82	74	156
Kennedy.....	—	—	104	60	164	93	95	188
Killaly.....	—	—	50	42	92	91	81	172
Kincaid.....	—	—	—	—	—	67	58	125
Kinistino.....	—	—	96	70	166	164	145	309

## POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>Saskatchewan—con.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>
<b>Villages—con.</b>								
Kinley.....	-	-	29	22	51	44	34	78
Kipling.....	-	-	130	107	237	124	102	226
Kisbey.....	-	-	150	119	269	190	191	381
Kronau.....	-	-	68	34	102	43	31	74
Krydor.....	-	-	-	-	-	35	28	63
Laflèche.....	-	-	-	-	-	98	64	162
Laird.....	-	-	108	87	195	121	130	251
Lampman.....	-	-	68	28	96	61	61	122
Lancer.....	-	-	-	-	-	59	36	95
Landis.....	-	-	82	45	127	64	39	103
Lang.....	-	108	155	146	301	154	137	291
Langenburg.....	-	156	124	96	220	106	92	198
Lashburn.....	-	-	130	102	232	125	110	235
Laura.....	-	-	51	31	82	50	45	95
Leask.....	-	-	-	-	-	49	36	85
Lebret.....	-	-	-	-	-	102	124	226
Leipzig.....	-	-	-	-	-	29	20	49
Lemsford.....	-	-	-	-	-	20	17	37
Leney.....	-	-	30	27	57	56	40	96
Leross.....	-	-	63	51	114	48	37	85
Leslie.....	-	-	64	62	126	65	65	130
Lestock.....	-	-	-	-	-	84	57	141
Liberty.....	-	-	-	-	-	57	43	100
Limerick.....	-	-	-	-	-	122	78	200
Lipton.....	-	160	146	127	273	151	144	295
Lockwood.....	-	-	62	39	101	60	40	100
Loreburn.....	-	-	84	51	135	60	49	109
Loverna.....	-	-	-	-	-	82	62	144
Luseland.....	-	-	73	31	104	65	66	131
Macoun.....	-	102	121	87	208	149	121	270
Macrorie.....	-	-	-	-	-	64	36	100
Maidstone.....	-	-	57	35	92	89	70	159
Major.....	-	-	-	-	-	34	17	51
Manor.....	27	250	143	146	289	152	138	290
Marcelin.....	-	-	-	-	-	74	87	161
Marengo.....	-	-	-	-	-	58	43	101
Margo.....	-	-	45	38	83	46	38	84
Markuick.....	-	-	34	20	54	70	59	129
Marquis.....	-	-	51	37	88	51	45	96
Marshall.....	-	-	-	-	-	47	34	81
Maryfield.....	-	-	133	76	209	155	102	257
Mawer.....	-	-	-	-	-	66	51	117
Maymont.....	-	-	70	51	121	69	58	127
McGee.....	-	-	-	-	-	26	14	40
McLean.....	-	-	-	-	-	56	38	94
McNutt.....	-	-	-	-	-	59	58	117
McTaggart.....	-	-	-	-	-	63	61	124
Meacham.....	-	-	80	54	134	23	21	44
Meyronne.....	-	-	-	-	-	65	44	109
Meota.....	-	-	-	-	-	85	80	165
Midale.....	-	-	89	67	156	99	96	195
Milden.....	-	-	-	-	-	67	47	114
Montmartre.....	-	-	109	92	201	169	138	307
Muenster.....	-	-	28	24	52	31	31	62
Netherhill.....	-	-	52	28	80	64	56	120
Neudorf.....	-	159	166	160	326	227	228	455
Neville.....	-	-	-	-	-	101	78	179
Norquay.....	-	-	-	-	-	42	29	71
North Portal.....	52	220	89	87	176	123	99	222
North Regina.....	-	-	-	-	-	260	204	464
Odessa.....	-	-	40	37	77	107	92	199
Osage.....	-	75	43	29	72	44	36	80
Osler.....	-	57	33	29	62	47	25	72
Otthon.....	-	-	-	-	-	27	43	70
Pangman.....	-	-	-	-	-	69	47	116
Parkbeg.....	-	-	-	-	-	45	16	61
Parkside.....	-	-	-	-	-	40	31	71



## AREA AND POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Saskatchewan—con.	No.	No.	No.	No.	No.	No.	No.	No.
Villages—con.								
Paynton.....	-	-	69	52	121	69	73	142
Pelly.....	-	-	51	31	82	87	84	171
Pennant.....	-	-	-	-	-	67	33	100
Pense.....	15	185	141	95	236	136	105	241
Penzance.....	-	-	-	-	-	31	29	60
Perdue (parts).....	-	-	87	68	155	162	129	291
Pilot Butte.....	-	-	-	-	-	91	66	157
Piapot.....	-	-	-	-	-	71	58	129
Plato.....	-	-	-	-	-	89	46	135
Plenty.....	-	-	114	14	128	55	30	85
Ponteix.....	-	-	-	-	-	186	149	335
Portreeve.....	-	-	-	-	-	34	37	71
Preeceville.....	-	-	-	-	-	79	69	148
Prelate.....	-	-	-	-	-	101	61	162
Prussia.....	-	-	-	-	-	272	218	490
Punnichy.....	-	-	41	32	73	63	49	112
Quill Lake.....	-	-	86	77	163	81	92	173
Quinton.....	-	-	41	35	76	24	22	46
Raymore.....	-	-	79	47	126	130	97	227
Readlyn.....	-	-	-	-	-	47	36	83
Redvers.....	-	138	108	92	200	108	97	205
Rhein.....	-	-	-	-	-	120	113	233
Robsart.....	-	-	-	-	-	64	27	9
Roche Percée.....	-	-	123	39	162	57	35	92
Rockhaven.....	-	-	-	-	-	45	25	70
Rocanville.....	-	136	142	124	266	186	177	363
Ruddell.....	-	-	-	-	-	51	33	84
Rush Lake.....	-	-	-	-	-	91	68	159
Salvador.....	-	-	30	19	49	71	55	126
Sceptre.....	-	-	-	-	-	78	58	136
Scotsguard.....	-	-	-	-	-	49	35	84
Sedley.....	-	-	145	76	221	123	98	221
Semans.....	-	-	115	79	194	157	131	288
Sheho.....	-	120	64	43	107	78	61	139
Shellbrook.....	-	-	114	84	198	156	151	307
Silton.....	-	-	-	-	-	40	37	77
Simpson.....	-	-	-	-	-	88	73	161
Smiley.....	-	-	-	-	-	19	14	33
Southey.....	-	-	85	72	152	148	143	291
Sovereign.....	-	-	-	-	-	92	56	148
Speers.....	-	-	-	-	-	68	56	124
Springside.....	-	-	68	55	123	90	79	169
Springwater.....	-	-	-	-	-	30	18	48
Spy Hill.....	-	-	37	34	71	32	30	62
Star City.....	-	109	84	48	132	129	124	253
St. Brieux.....	-	-	-	-	-	37	31	68
Stenen.....	-	-	-	-	-	51	48	99
Stockholm.....	-	70	53	47	100	51	57	108
Stornoway.....	-	-	33	19	52	33	30	63
Stoughton.....	-	242	166	145	311	250	205	455
Stranraer.....	-	-	-	-	-	43	31	74
Strongfield.....	-	-	-	-	-	42	34	76
Sturgis.....	-	-	-	-	-	44	48	92
Success.....	-	-	-	-	-	48	34	82
Summerberry.....	-	-	41	38	79	61	58	119
Swanson.....	-	-	-	-	-	47	36	83
Tantallon.....	-	91	62	53	115	59	52	111
Tate.....	-	-	31	23	54	49	33	82
Tessier.....	-	-	42	23	65	69	42	111
Theodore.....	-	-	99	94	193	129	117	246
Tisdale.....	-	61	139	111	250	250	208	458
Togo.....	-	50	65	46	111	108	87	195
Tomkins.....	-	-	61	29	90	90	71	161
Tribune.....	-	-	-	-	-	90	73	163
Truax.....	-	-	-	-	-	44	42	86
Tugaske.....	-	-	123	81	204	150	121	271
Turtleford.....	-	-	-	-	-	123	105	228
Tuxford.....	-	-	71	50	121	70	58	128

## POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>Saskatchewan—concluded.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>
Villages—concluded.								
Tyvan	—	100	92	92	184	100	91	191
Unity	—	—	87	62	149	253	204	457
Vanguard	—	—	—	—	—	210	129	339
Vawn	—	—	—	—	—	30	18	48
Venn	—	—	38	20	58	37	24	61
Verigin	—	—	—	—	—	99	100	199
Verwood	—	—	—	—	—	67	49	116
Vibank	—	—	—	—	—	114	130	244
Viceroy	—	—	—	—	—	79	61	140
Viseount	—	—	43	29	72	97	80	177
Wakaw	—	—	—	—	—	130	120	250
Waldeck	—	—	—	—	—	104	78	182
Waldheim	—	—	—	—	—	118	112	230
Waldron	—	—	65	49	114	48	41	89
Warman	—	129	87	62	149	92	95	187
Waseca	—	—	—	—	—	47	32	79
Wauchope	—	72	74	53	127	72	55	127
Wawota	—	—	113	87	200	140	128	268
Webb	—	—	48	27	75	119	77	196
Weldon	—	—	—	—	—	55	43	98
Welwyn	—	—	86	53	139	107	89	196
Wileox	—	—	166	96	262	131	112	243
Windthorst	—	—	126	82	208	125	91	216
Wiseton	—	—	—	—	—	40	26	66
Woodrow	—	—	—	—	—	93	75	168
Wroxton	—	—	—	—	—	48	49	97
Young	—	—	42	31	73	86	75	161
Zelma	—	—	23	24	47	39	32	71
<b>Alberta.</b>								
Districts—								
Battle River	597	5,598	15,936	10,416	26,352	23,557	17,091	40,648
Bow River	1,565	6,576	17,968	9,336	27,304	20,287	14,108	34,395
Calgary East	5,526	19,996	21,621	13,542	35,163	21,744	18,351	40,095
Calgary West	3,546	9,193	18,036	11,987	30,023	21,460	18,863	40,323
Edmonton East	7,685	19,495	17,752	13,542	31,294	27,437	22,601	50,038
Edmonton West	7,641	11,593	21,888	13,498	35,386	31,125	24,188	55,313
Lethbridge	5,995	12,129	17,286	12,201	29,487	17,687	13,876	31,563
Macleod	8,228	23,549	18,231	12,548	30,779	19,379	14,504	33,883
Medicine Hat	3,185	6,897	15,273	9,424	24,697	23,206	17,135	40,341
Red Deer	7,568	22,960	22,519	14,988	37,507	23,244	18,410	41,654
Strathcona	12,635	21,211	15,867	12,488	28,355	20,951	17,989	38,940
Victoria	8,851	26,215	21,612	16,704	38,316	27,179	22,153	49,332
<b>Total</b>	<b>73,022</b>	<b>185,412</b>	<b>223,989</b>	<b>150,674</b>	<b>374,663</b>	<b>277,256</b>	<b>219,269</b>	<b>496,525</b>
<b>Cities—</b>								
Calgary	4,392	13,573	26,565	17,139	43,704	29,278	27,236	56,514
Edmonton	4,176	14,088	17,054	13,425	30,479	27,462	26,384	53,846
Lethbridge	2,072	2,313	4,462	3,588	8,050	4,896	4,540	9,436
Medicine Hat	1,570	3,020	3,207	2,401	5,608	4,781	4,491	9,272
Red Deer	323	1,418	1,213	905	2,118	1,127	1,076	2,203
Wetaskiwin	550	1,652	1,264	1,147	2,411	1,047	1,001	2,048
<b>Towns—</b>								
Athabaska Landing	268	407	157	70	227	268	229	497
Bassano	—	—	333	207	540	291	278	569
Beverley	—	—	—	—	—	430	383	813
Blairmore	231	449	734	403	1,137	723	496	1,219
Bow Island	—	—	202	105	307	184	136	320
Brooks	—	—	327	159	486	165	125	290
Camrose	—	412	1,059	527	1,586	873	819	1,692
Cardston	639	1,001	642	565	1,207	703	667	1,370
Carmanguay	—	—	162	124	286	171	161	332
Castor	—	—	1,041	618	1,659	396	359	755
Clareholme	—	680	457	352	809	359	328	687
Coleman	—	915	976	581	1,557	866	693	1,559

## AREA AND POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—con.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Alberta—con.	No.	No.	No.	No.	No.	No.	No.	No.
Towns—con.								
Coronation.....	—	—	—	—	—	257	199	456
Day-land.....	—	288	204	145	349	210	174	384
Didsbury.....	112	477	404	322	726	334	306	640
Edson.....	—	—	341	156	497	257	243	500
Fort Saskatchewan.....	306	585	447	335	782	580	413	993
Gleichen.....	101	199	390	193	583	362	229	591
Granum.....	—	104	139	111	250	159	133	292
Grouard.....	—	—	253	194	447	150	118	268
Hanna.....	—	—	—	—	—	425	286	711
Hardisty.....	—	—	223	128	351	188	169	357
High River.....	153	1,018	640	542	1,182	650	532	1,182
Innisfail.....	317	643	311	291	602	438	400	838
Irvine.....	—	200	187	185	372	203	218	421
Lacombe.....	409	1,015	536	493	1,029	545	502	1,047
Langdon.....	—	—	93	66	159	84	77	161
Leduc.....	112	391	269	254	523	299	285	584
Lloydminster Park.....	—	130	98	124	222	152	142	294
Macleod.....	796	1,144	1,121	723	1,844	976	835	1,811
Magrath.....	424	884	535	460	995	506	432	938
Morinville.....	49	203	213	172	385	156	175	331
Nanton.....	—	382	302	269	571	319	271	590
Okotoks.....	245	508	293	223	516	286	239	525
Olds.....	218	554	493	424	917	356	374	730
Pinecher Creek.....	335	589	555	472	1,027	531	495	1,026
Ponoka.....	151	473	352	290	642	317	287	604
Raymond.....	—	1,568	799	666	1,465	629	576	1,205
Redcliff.....	—	—	—	—	—	724	570	1,294
St. Albert.....	472	543	308	306	614	327	328	655
Staveland.....	—	129	145	100	245	146	122	268
Stettler.....	—	570	884	560	1,444	646	522	1,168
Stony Plain.....	—	—	273	232	505	148	145	293
Strathmore.....	—	—	334	197	531	298	213	511
Taber.....	—	578	800	600	1,400	758	654	1,412
Tofield.....	—	—	402	184	586	237	218	455
Vegreville.....	—	344	574	455	1,029	564	592	1,156
Vernilion.....	—	623	360	265	625	496	433	929
Wainwright.....	—	—	481	307	788	449	360	818
Villages—								
Aene.....	—	—	119	62	181	76	72	148
Airdrie.....	—	—	101	63	164	85	71	156
Alix.....	—	—	161	106	267	82	100	182
Barons.....	—	—	48	27	75	105	76	184
Bashaw.....	—	—	—	—	—	126	101	227
Bawlf.....	—	—	151	119	270	99	88	187
Big Valley.....	—	—	—	—	—	158	139	297
Bittern Lake.....	—	—	—	—	—	31	33	64
Blackfalds.....	—	156	90	60	150	53	52	105
Blackie.....	—	—	—	—	—	107	78	185
Botha.....	—	—	—	—	—	42	35	77
Bow City.....	—	—	—	—	—	17	11	28
Bowden.....	12	171	97	81	178	74	65	139
Bruderheim.....	—	—	72	60	132	99	83	182
Burdett.....	—	—	—	—	—	53	42	95
Cardogan.....	—	—	—	—	—	30	25	55
Carlton.....	—	—	—	—	—	244	196	440
Carlstadt.....	—	—	—	—	—	63	60	123
Carstairs.....	20	297	151	119	270	188	160	348
Cayley.....	—	48	74	52	126	74	56	130
Ceval.....	—	—	—	—	—	56	33	89
Champion.....	—	—	—	—	—	137	98	235
Chauvin.....	—	—	—	—	—	86	67	153
Chinook.....	—	—	—	—	—	113	76	189
Chipman.....	—	—	—	—	—	69	65	134
Clive.....	—	—	—	—	—	59	56	115
Clyde.....	—	—	—	—	—	25	28	53
Coalhurst.....	—	—	—	—	—	520	222	742
Cochrane.....	62	158	256	139	395	144	140	284



## POPULATION.

## 23.—Population of the Prairie Provinces, 1901, 1906, 1911 and 1916—concluded.

Districts, Cities, Towns and Incorporated Villages.	1901.	1906.	1911.			1916.		
	Total.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>Alberta—concluded.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>
Villages—con.	—	—	—	—	—	128	84	212
Commerce.....	—	—	—	—	—	79	52	131
Consort.....	—	78	86	56	142	65	54	119
Cowley.....	—	—	159	103	262	135	109	244
Crossfield.....	—	—	—	—	—	56	48	104
Delburne.....	—	—	342	168	510	82	65	147
Diamond City.....	—	—	—	—	—	72	53	125
Donalda.....	—	—	—	—	—	170	142	312
Drumheller.....	—	—	—	—	—	94	53	147
Dunmore.....	—	—	—	—	—	252	174	426
Empress.....	—	—	100	40	140	24	23	47
Entwhistle.....	—	—	74	57	131	58	56	114
Erskine.....	—	—	15	10	25	20	6	26
Everts.....	—	—	47	29	76	53	40	93
Ferintosh.....	19	1,178	478	328	806	369	253	622
Frank.....	—	—	139	74	213	88	65	153
Gadsby.....	—	318	560	245	805	210	127	337
Grand Prairie.....	—	—	138	109	247	107	78	185
Grassy Lake.....	—	—	—	—	—	53	44	97
Halkirk.....	—	—	64	47	111	81	59	140
Holden.....	—	—	54	46	100	100	140	300
Innisree.....	—	—	—	—	—	44	36	80
Irrua.....	—	—	—	—	—	76	48	124
Irricana.....	—	—	53	37	90	66	51	117
Islay.....	—	—	117	80	197	155	135	290
Killam.....	—	—	—	—	—	67	53	120
Kitseoty.....	—	—	111	86	197	184	151	335
Lamont.....	—	60	97	30	127	51	40	91
Lavoy.....	—	—	—	—	—	104	93	200
Legal.....	3	413	198	105	303	—	—	—
Lille.....	—	—	—	—	—	127	112	239
Lougheed.....	—	—	94	75	169	135	106	241
Manville.....	—	85	90	72	162	94	79	173
Millet.....	—	—	—	—	—	161	124	285
Mirror.....	—	—	—	—	—	59	41	100
Monarch.....	—	—	—	—	—	131	79	210
Monitor.....	—	—	40	49	89	42	57	99
Mountain View.....	86	128	85	67	152	154	130	284
Mundare.....	—	—	71	21	92	86	63	149
Munson.....	—	—	40	21	61	49	48	97
New Norway.....	—	—	270	134	404	1	1	1
North Edmonton.....	—	—	176	128	304	177	177	354
North Red Deer.....	—	—	32	23	55	43	29	72
Obaton.....	—	—	—	—	—	178	108	286
Oyen.....	—	—	—	—	—	485	257	742
Peace River Crossing.....	—	—	—	—	—	56	49	105
Penhold.....	—	76	56	38	94	56	49	105
Pincher City.....	—	—	81	35	116	58	33	91
Provost.....	—	—	183	146	329	243	187	430
Retlaw.....	—	—	—	—	—	68	29	107
Rocky Mountain House.....	—	—	—	—	—	106	85	191
Ryley.....	—	—	60	50	110	75	67	142
Sedgewick.....	—	—	191	140	331	188	175	363
Stirling.....	349	438	280	234	514	157	137	294
St. Paul de Metis.....	—	—	—	—	—	171	153	324
Strome.....	—	—	112	80	192	157	140	297
Sudbield.....	—	—	—	—	—	80	63	143
Sylvan Lake.....	—	—	—	—	—	61	54	115
Three Hills.....	—	—	—	—	—	125	99	224
Tollerton.....	—	—	—	—	—	32	17	49
Trochu.....	—	—	213	140	353	136	140	276
Veteran.....	—	—	—	—	—	50	52	102
Vilang.....	—	—	96	57	153	131	96	227
Vulcan.....	—	—	—	—	—	227	188	415
Wakamun.....	—	—	—	—	—	79	74	153
Wadsh.....	—	—	—	—	—	72	58	130
Warner.....	—	—	108	123	321	179	131	310
West Edmonton.....	—	—	109	72	181	1	1	1
Youngstown.....	—	—	—	—	—	163	142	305

<sup>1</sup> Now part of Edmonton City.

## AREA AND POPULATION.

**Urban Population of the Prairie Provinces.**—Winnipeg remains the only city in the Prairie Provinces that has a population exceeding 100,000, and this city has grown from 136,035 in 1911 to 163,000 in 1916. Two cities have, however, risen to the category exceeding 50,000, viz., Calgary and Edmonton in Alberta. In 1916 Calgary is shown to have 56,514 inhabitants as compared with 43,704 in 1911, and Edmonton 53,846 as compared with 30,479 in 1911. In the case of Edmonton, however, the increased population includes Strathcona, now forming part of the city as Edmonton South. Two cities exceed 20,000, viz., Regina (26,127) and Saskatoon (21,048). The former has receded from a population of 30,213 in 1911, and the latter has increased from 12,004 in 1911. Of the remaining twelve cities three exceed 10,000, viz., Moosejaw, in Saskatchewan, with 16,934; Brandon, Manitoba, with 15,215; and St. Boniface, Manitoba, with 11,021.

## VITAL STATISTICS.

**Vital Statistics by Provinces.**—In Canada the registration of births, marriages and deaths is under provincial control, and at present divergent methods, with, in New Brunswick, entire lack of statistics, render impossible the deduction for any series of years of annual birth-, marriage- and death-rates for the Dominion as a whole.

Table 24 shows, however, by provinces (New Brunswick excepted) the number of births, marriages and deaths in each of the years 1911 to 1915, according to the latest returns of the provincial registrars. Using the census figures of population for 1911, and estimates of the Census and Statistics Office for 1912, 1913, 1914, and 1915, crude birth-, marriage-, and death-rates per 1,000 of the population living have been calculated for each year, as well as the excess of births over deaths. For Prince Edward Island no data for the year 1912 are available. The figures by provinces in this table are not strictly comparable, owing to the diversity of practice which at present prevails as between the different provincial registrars. Not only is the statistical year not uniform for all the provinces, but there is no uniformity in the practice as regards the inclusion or exclusion of still-births. Thus, in Nova Scotia, Quebec and Ontario still-births are eliminated from the calculations; but in Prince Edward Island, the Prairie Provinces and British Columbia they are included, and for these provinces the numbers of still-births, which are too small to affect materially the birth- and death-rates calculated, are given in a note at the foot of the table.

**Vital Statistics of Cities.**—Table 25 records the number of births, marriages and deaths by principal cities for the years 1913 and 1915 in continuation of the tables given in previous editions. In this table the natural increase per 1,000 of the population is based upon the locally estimated population in all cases where given.

## VITAL STATISTICS.

## 24.—Number of Births, Marriages and Deaths, by Provinces, 1911-1915.

Provinces.	Births.	Birth-rate per 1,000 living.	Marriages.	Marriage-rate per 1,000 living.	Deaths.	Death-rate per 1,000 living.	Excess of Births over Deaths.
P. E. Island <sup>1</sup> ...	1911 1,497	15.97	470	5.01	1,114	11.89	383
	1912		(not published in 1912.)				
	1913 1,628	17.37	478	5.10	983	10.49	645
	1914 1,511	16.12	544	5.80	1,012	10.80	499
	1915 1,743	18.59	530	5.65	1,085	11.57	658
Nova Scotia...	1911 12,322	25.03	3,004	6.10	8,237	16.73	4,085
	1912 12,681	25.52	2,937	5.91	7,126	14.34	5,555
	1913 12,553	25.22	3,259	6.55	7,225	14.52	5,328
	1914 12,771	25.46	3,643	7.26	7,527	15.01	5,244
	1915 13,171	26.08	3,384	6.70	7,675	15.20	5,496
Quebec.....	1911 <sup>1</sup> 74,475	37.18	15,254	7.61	35,904	17.92	38,571
	1912 76,647	37.53	16,055	7.86	32,980	16.15	43,667
	1913 79,089	37.70	17,253	8.13	36,200	17.33	42,889
	1914 80,361	38.00	16,121	7.62	36,002	17.02	44,359
	1915 —	—	—	—	—	—	—
Ontario.....	1911 56,096	22.23	25,807	10.23	31,878	12.62	24,218
	1912 58,870	23.00	28,845	11.27	32,150	12.56	26,720
	1913 64,516	24.00	26,998	10.00	34,317	12.70	30,199
	1914 66,225	24.21	24,245	9.22	32,440	12.35	33,785
	1915 67,032	25.15	23,506	8.82	33,294	12.49	33,738
Manitoba <sup>1</sup> ....	1911 13,407	29.43	5,177	11.36	5,481	12.03	7,926
	1912 14,666	30.32	6,095	12.60	6,084	12.58	8,582
	1913 16,424	36.34	5,985	13.24	5,919	13.10	10,505
	1914 17,449	33.50	5,667	10.88	5,617	10.78	11,832
	1915 —	—	—	—	—	—	—
Saskatchewan <sup>1</sup>	1911 8,745	17.76	3,511	7.12	2,727	5.54	6,018
	1912 11,479	20.24	4,651	8.20	3,567	6.29	7,912
	1913 13,200	20.94	4,990	7.92	4,150	6.58	9,050
	1914 16,489	22.82	5,014	6.94	3,950	5.47	12,529
	1915 —	—	—	—	—	—	—
Alberta <sup>1</sup> .....	1911 8,812	23.52	3,630	9.69	3,618	9.69	5,195
	1912 10,284	23.60	4,429	10.16	4,232	9.71	6,052
	1913 11,871	24.34	5,053	10.36	4,432	9.09	7,439
	1914 13,685	24.25	4,623	8.19	4,147	7.35	9,538
	1915 13,452	27.36	4,202	8.55	3,588	7.30	9,864
B. Columbia <sup>1</sup> ..	1911 5,841	14.88	4,509	11.49	3,660	9.32	2,181
	1912 8,008	18.85	5,235	12.33	4,312	10.15	3,695
	1913 9,199	18.58	5,012	10.12	4,619	9.33	4,580
	1914 8,754	17.93	4,296	8.80	3,974	8.14	4,780
	1915 8,558	16.22	3,393	6.43	3,832	7.26	4,726
Yukon.....	1911 48	5.64	41	4.82	87	10.22	—39
	1912 61 <sup>2</sup>	7.17	48	5.64	58	6.81	3
	1914 <sup>3</sup> 66	7.75	41	4.82	50	5.87	16
	1915 44	5.17	38	4.46	71	8.34	—27

<sup>1</sup>Including still-births as follows: P. E. Island 4 in 1911, 1 in 1913, 3 in 1914, 12 in 1915; Manitoba 243 in 1911, 316 in 1912; Saskatchewan 48 in 1911, 170 in 1912, 134 in 1913, 182 in 1914; Alberta 160 in 1911, 230 in 1912, 250 in 1913—in 1914 and 1915, 315 and 305 are not included; British Columbia 191 in 1911, 240 in 1912, 279 in 1913, 235 in 1914, 246 in 1915; Yukon 3 in 1914. In Manitoba in 1913 and 1914 still-births are excluded. <sup>2</sup>Incomplete. <sup>3</sup>11 months.



## AREA AND POPULATION.

## 25.—Number of Births, Marriages and Deaths, by Principal Cities, 1913-1915.

Cities.	Year.	Popula- tion.	Births.	Mar- riages.	Deaths.	Excess of Births over Deaths.	Natural Increase per 1,000 of Popu- lation.
P. E. Island— Charlottetown	1913	—	183	not given	128	58	—
	1914	—	46 <sup>2</sup>	"	188	—	—
	1915	12,000	197 <sup>2</sup>	"	253	—	—
Nova Scotia— Halifax.....	1913	—	1,402	"	912	490	—
	1914	47,109	1,464	"	1,031	433	9.19
	1915	55,000	1,492	"	1,128	364	6.62
Sydney.....	1913	—	641	"	368	273	—
	1914	17,996	544	"	349	195	10.84
	1915	18,338	588	"	246	342	—
Glace Bay.....	1913	—	455	"	276	179	—
	1914	16,741	531	"	271	260	15.53
	1915	16,975	528	"	294	234	—
Quebec— Montreal.....	1913	—	20,490	6,280	12,299	8,191	—
	1914	—	20,386	5,781	11,721	8,665	—
	1915	—	—	—	—	—	—
Quebec.....	1913	—	3,096	638	1,668	1,428	—
	1914	—	3,136	612	1,784	1,352	—
	1915	—	—	—	—	—	—
Maisonneuve.....	1913	—	835 <sup>2</sup>	147 <sup>2</sup>	403	—	—
	1914	—	743 <sup>2</sup>	131 <sup>2</sup>	460	—	—
	1915	—	—	—	—	—	—
Hull.....	1913	—	655 <sup>2</sup>	124	204	—	—
	1914	—	879 <sup>2</sup>	137 <sup>2</sup>	211	—	—
	1915	—	—	—	—	—	—
Sherbrooke.....	1913	—	704 <sup>2</sup>	137 <sup>2</sup>	337	—	—
	1914	—	673 <sup>2</sup>	107 <sup>2</sup>	374	—	—
	1915	—	—	—	—	—	—
Westmount.....	1913	—	138 <sup>2</sup>	24 <sup>2</sup>	89	—	—
	1914	—	162 <sup>2</sup>	48 <sup>2</sup>	94	—	—
	1915	—	—	—	—	—	—
Three Rivers.....	1913	—	656	133	343	313	—
	1914	—	660	120	275	385	—
	1915	—	—	—	—	—	—
Verdun.....	1913	—	505 <sup>2</sup>	69 <sup>2</sup>	347	—	—
	1914	—	582 <sup>2</sup>	75 <sup>2</sup>	345	—	—
	1915	—	—	—	—	—	—
Lachine.....	1913	—	396 <sup>2</sup>	65 <sup>2</sup>	233	—	—
	1914	—	422 <sup>2</sup>	54 <sup>2</sup>	241	—	—
	1915	—	—	—	—	—	—
St. Hyacinthe.....	1913	—	325	106 <sup>2</sup>	220	105	—
	1914	—	342	99 <sup>2</sup>	221	121	—
	1915	—	—	—	—	—	—
Ontario— Toronto.....	1913	454,000	13,722	6,381	6,223	7,499	16.52
	1914	475,000	13,949	5,964	5,602	8,347	17.57
	1915	475,000	12,866	5,676	5,548	7,258	15.28

<sup>2</sup>Incomplete.

## VITAL STATISTICS.

25.—Number of Births, Marriages and Deaths, by Principal Cities, 1913-1915  
—continued.

Cities.	Year.	Popula- tion.	Births.	Mar- riages.	Deaths.	Excess of Births over Deaths.	Natural Increase per 1,000 of Popu- lation.
Ontario—con.							
Ottawa.....	1913	96,350	2,482	1,044	1,767	715	7.42
	1914	97,900	2,592	1,072	1,697	895	9.14
	1915	96,340	2,554	1,051	1,662	892	9.25
Hamilton.....	1913	100,650	2,706	1,395	1,211	1,495	14.85
	1914	101,190	2,845	1,163	1,158	1,687	16.67
	1915	100,310	2,771	1,151	1,197	1,574	15.69
London.....	1913	52,940	1,203	605	854	349	6.59
	1914	54,220	1,200	607	802	398	7.34
	1915	55,860	1,185	710	837	348	6.23
Brantford.....	1913	26,100	742	323	369	373	14.29
	1914	26,100	808	296	281	527	20.19
	1915	25,180	636	269	306	330	13.10
Kingston.....	1913	21,010	523	268	439	84	4.00
	1914	21,260	517	287	372	145	6.82
	1915	21,330	522	291	405	117	5.48
Peterborough.....	1913	19,170	470	232	268	202	10.54
	1914	19,650	476	207	254	222	11.30
	1915	19,430	482	223	277	205	10.55
Windsor.....	1913	21,610	511	1,423	327	184	8.51
	1914	22,500	626	622	316	310	13.78
	1915	23,640	632	529	293	339	14.34
Fort William.....	1913	24,070	866	309	390	476	19.78
	1914	27,180	956	254	311	645	23.73
	1915	20,850	1,009	199	258	751	36.02
Kitchener.....	1913	18,500	506	202	245	261	14.11
	1914	18,880	531	222	211	320	16.95
	1915	19,090	534	191	200	334	17.49
Guelph.....	1913	16,320	394	175	220	174	10.66
	1914	16,800	353	145	209	144	8.57
	1915	16,740	366	184	214	152	9.08
St. Thomas.....	1913	14,520	318	205	178	140	9.64
	1914	15,490	340	186	218	122	7.88
	1915	15,840	362	169	188	174	10.98
Stratford.....	1913	14,570	337	141	192	145	9.95
	1914	14,570	357	139	165	192	13.18
	1915	15,150	378	156	185	193	12.74
Owen Sound.....	1913	12,790	329	127	178	151	11.81
	1914	12,560	342	125	138	204	16.24
	1915	12,380	312	112	140	172	13.89
St. Catharines.....	1913	15,080	420	194	242	178	11.80
	1914	15,860	500	238	243	257	16.20
	1915	16,660	587	257	255	332	19.92
Port Arthur.....	1913	18,030	706	249	294	412	22.85
	1914	18,320	702	210	215	487	26.58
	1915	14,310	589	138	163	426	29.77
Sault Ste. Marie....	1913	12,290	306	157	236	70	5.70
	1914	13,200	279	180	198	81	6.14
	1915	12,590	288	168	180	108	8.58
Chatham.....	1913	12,390	260	207	207	53	4.28
	1914	12,830	250	194	230	20	1.56
	1915	13,090	256	179	189	67	5.11

## AREA AND POPULATION.

25.—Number of Births, Marriages and Deaths, by Principal Cities, 1913-1915  
—continued.

Cities.	Year.	Popula- tion.	Births.	Mar- riages.	Deaths.	Excess of Births over Deaths.	Natural Increase per 1,000 of Popu- lation.
Ontario—con.							
Galt.....	1913	11,930	280	150	156	124	10.39
	1914	12,020	323	132	139	184	15.31
	1915	11,810	298	108	144	154	13.04
Sarnia.....	1913	11,550	258	184	149	109	9.44
	1914	12,090	270	179	156	114	9.43
	1915	12,140	295	128	164	131	10.79
Belleville.....	1913	10,600	258	138	187	71	6.70
	1914	11,230	240	130	149	91	8.10
	1915	11,940	260	124	172	88	7.37
Brockville.....	1913	9,675	225	127	186	39	4.03
	1914	9,275	228	85	173	55	5.93
	1915	9,460	236	106	193	43	4.55
Woodstock.....	1913	9,485	223	106	143	80	8.43
	1914	9,600	203	131	124	79	8.23
	1915	9,600	210	111	110	100	10.41
Niagara Falls.....	1913	12,020	267	492	131	136	11.31
	1914	11,650	294	291	140	154	13.22
	1915	11,450	263	292	133	130	11.35
North Bay.....	1913	9,490	340	124	144	196	20.65
	1914	10,980	406	121	146	260	23.68
	1915	8,935	416	91	128	288	32.23
Manitoba—							
Winnipeg.....	1913	184,730	5,577	3,404	2,204	3,373	18.26
	1914	203,255	5,789	3,070	1,955	3,834	18.86
	1915	—	—	—	—	—	—
Brandon.....	1913	15,911	680	296	279	401	25.20
	1914	17,177	641	277	229	412	23.99
	1915	—	—	—	—	—	—
St. Boniface.....	1913	11,405	327	109	389	—	—
	1914	12,025	421	119	302	119	9.90
	1915	—	—	—	—	—	—
Portage la Prairie..	1913	6,343	231	97	118	113	17.81
	1914	6,500	204	85	126	78	12.00
	1915	—	—	—	—	—	—
Saskatchewan—							
Regina.....	1913	—	845	528	486	359	—
	1914	50,000	1,006	493	298	708	14.16
	1915	—	—	—	—	—	—
Moosejaw.....	1913	—	515	484	284	231	—
	1914	30,000	607	400	210	397	13.23
	1915	—	—	—	—	—	—
Saskatoon.....	1913	—	856	576	429	427	—
	1914	30,000	914	433	265	649	21.63
	1915	—	—	—	—	—	—
North Battleford...	1913	—	239	74	67	172	—
	1914	6,000	198	92	46	152	25.33
	1915	—	—	—	—	—	—
Prince Albert.....	1913	—	310	178	172	138	—
	1914	10,000	274	144	123	151	15.10
	1915	—	—	—	—	—	—
Swift Current.....	1913	—	—	—	—	—	—
	1914	6,000	159	141	49	110	18.33
	1915	—	—	—	—	—	—



## VITAL STATISTICS.

25.—Number of Births, Marriages and Deaths, by Principal Cities, 1913-1915  
—concluded.

Cities.	Year.	Popula- tion.	Births.	Mar- riages.	Deaths.	Excess of Births over Deaths.	Natural Increase per 1,000 of Popu- lation
Saskatchewan—con.							
Weyburn.....	1913	—	—	—	—	—	—
	1914	5,343	165	114	48	117	21.90
	1915	—	—	—	—	—	—
Alberta—							
Calgary.....	1913	—	2,278	1,379	878	1,400	—
	1914	—	2,354	1,121	685	1,669	—
	1915	56,302	2,162	1,000	636	1,526	27.10
Edmonton.....	1913	—	1,365	986	778	587	—
	1914	—	1,824	1,009	652	1,172	—
	1915	53,794	1,909	976	612	1,297	24.11
Lethbridge.....	1913	—	241	242	166	75	—
	1914	—	247	221	138	109	—
	1915	9,437	277	198	105	172	18.22
Medicine Hat.....	1913	—	328	264	215	113	—
	1914	—	419	179	162	257	—
	1915	9,269	372	171	104	268	28.91
British Columbia—							
Vancouver.....	1913	114,220	4,115	2,485	1,799	2,316	20.28
	1914	106,110	2,425	1,717	1,178	1,247	11.75
	1915	100,000	2,311	1,274	1,127	1,184	11.84
Victoria.....	1913	—	986	851	569	417	—
	1914	—	772	770	459	313	—
	1915	—	820	480	464	356	—
New Westminster..	1913	17,198	855	378	491	364	21.16
	1914	15,000	536	222	302	234	15.60
	1915	15,000	289	173	225	64	4.26
Nanaimo.....	1913	8,000	318	120	149	169	21.12
	1914	8,500	340	98	133	207	24.35
	1915	8,500	304	88	162	142	16.70

## IMMIGRATION.

**Immigrant Arrivals, 1916-17.**—For the fiscal year ended March 31, 1917, the number of immigrant arrivals in Canada was 75,374, as compared with 48,537 in 1916, 144,789 in 1915 and 384,878 in 1914, the year before the war broke out. Of the total who arrived in 1916-17, 8,282, or 11 p.c., came from the United Kingdom, 61,389, or 81 p.c., came from the United States and 5,703, or 8 p.c., came from other countries. As shown by Table 26, the increase in the number of immigrants in 1916-17 was mainly due to arrivals from the United States, the number of United States immigrants being 61,389, as against 36,937. There was also an increase in the arrivals from "other countries," the figures being 5,703, as against 2,936; but in the case of the United Kingdom the number was 8,282, as against 8,664. For the calendar year 1916 the number of immigrant arrivals was 65,836, including 8,596 from the United Kingdom, 51,701 from the United States and 5,539 from other countries. Table 28 records the rejections and deportations of immigrant arrivals by principal causes for the years 1903 to 1917. For 1917, the statistics of rejection and deportation by causes and by nationalities are given by the Immigration Branch of the Depart-

## AREA AND POPULATION.

ment of the Interior under shorter classifications than heretofore. Tables 28 and 29 follow, therefore, the new classifications for the series of years from 1903.

**Juvenile Immigration.**—For the year ended March 31, 1917, 251 children came to Canada through five different agencies, and were placed in foster-homes or situations. Applications for the services of these children numbered 28,990, as shown in Table 30. Altogether, over 78,000 children have been placed out in Canada since the organization of this class of immigration began in 1868. Of the total, about 26,300 have come from the Dr. Barnardo Homes. In his annual report for the year 1916, the Chief Inspector of British Immigrant Children and Receiving Homes writes that upwards of 8,700 young men, who came to Canada as boys through the British juvenile societies and agencies, have enlisted for service in the war, this number representing nearly 25 p.c. of the total number of boys who came to Canada under these auspices. The enlistments of former members of the Dr. Barnardo Homes alone number over 5,300. The young soldiers are reported as bearing their part nobly in the great struggle. One of them has gained the Victoria Cross, and others have received honours of different kinds, including the Distinguished Service Order, the Military Cross and the Distinguished Conduct Medal.

**Chinese Immigration.**—The conditions under which Chinese immigrants have been allowed to enter Canada have been described in previous issues of the Year Book (see edition for 1915, page 110). The number of Chinese who entered Canada during the two fiscal years ended March 31, 1917, has been much reduced owing to the operation of the Order in Council (renewed every six months since December 8, 1913), under which the landing in British Columbia of skilled and unskilled artisans and labourers is prohibited. In 1916-17 the number of Chinese immigrants was 272, as compared with 20 in 1915-16, 1,155 in 1914-15 and 5,274 in 1913-14. A record of Chinese immigration from 1886 to 1917 is given as Table 33.

26.—Number of Immigrant Arrivals in Canada, 1897-1917.

Fiscal Years.	Immigrant Arrivals from			Total.	Fiscal Years.	Immigrant Arrivals from			Total.
	United Kingdom.	United States.	Other Countries.			United Kingdom.	United States.	Other Countries.	
	No.	No.	No.	No.		No.	No.	No.	No.
1897 <sup>1</sup>	11,383	2,412	7,921	21,716	1908	120,182	58,312	83,975	262,469
1898 <sup>1</sup>	11,173	9,119	11,608	31,900	1909	52,901	59,832	34,175	146,908
1899 <sup>1</sup>	10,660	11,945	21,938	44,543	1910	59,790	103,798	45,206	208,794
1900 <sup>2</sup>	5,141	8,543	10,211	23,895	1911	123,013	121,451	66,620	311,084
1901	11,810	17,987	19,352	49,149	1912	138,121	133,710	82,406	354,237
1902	17,259	26,388	23,732	67,379	1913	150,542	139,009	112,881	402,432
1903	41,792	49,473	37,099	128,364	1914	142,622	107,530	134,726	384,878
1904	50,374	45,171	34,786	130,331	1915	43,276	59,779	41,734	144,789
1905	65,359	43,543	37,364	146,266	1916	8,664	36,937	2,936	48,537
1906	86,796	57,796	44,472	189,064	1917	8,282	61,389	5,703	75,374
1907 <sup>3</sup>	55,791	34,659	34,217	124,667					

<sup>1</sup>Calendar year. <sup>2</sup>Six months, January to June, inclusive. <sup>3</sup>Nine months ended March 31.

## IMMIGRATION.

27.—Arrivals at Inland and Ocean Ports in Canada in fiscal years 1911-1917.

Nationalities.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
	No.	No.	No.	No.	No.	No.	No.
English.....	84,707	95,107	108,082	102,122	30,807	5,857	5,174
Irish.....	6,877	8,327	9,706	9,585	3,525	818	958
Scotch.....	29,924	32,988	30,735	29,128	8,346	1,887	2,062
Welsh.....	1,505	1,699	2,019	1,787	598	102	88
<b>Total for U.K.....</b>	<b>123,013</b>	<b>138,121</b>	<b>150,542</b>	<b>142,622</b>	<b>43,276</b>	<b>8,664</b>	<b>8,282</b>
Armenian.....	20	60	100	139	36	-	3
Australian.....	266	184	106	106	51	32	18
Austrian.....	7,891	4,871	1,050	3,147	502	15	1
Belgian.....	1,563	1,601	1,826	2,651	1,149	172	126
Bukowinian.....	700	328	687	1,549	72	-	-
Bulgarian.....	1,068	3,295	4,616	1,727	4,048	1	-
Chinese.....	5,278	6,247	7,445	5,512	1,258	88	393
Danish.....	535	628	798	871	326	167	-
Dutch.....	931	1,077	1,524	1,506	605	186	151
Finnish.....	2,132	1,646	2,391	3,183	459	139	-
French.....	2,041	2,094	2,755	2,683	1,206	180	199
Galician.....	3,553	1,594	497	1,698	36	-	-
German, n.e.s.....	2,530	4,645	4,938	5,525	2,470	27	9
Greek.....	777	693	1,390	1,102	1,147	145	258
Hebrew, Austrian.....	248	269	392	728	160	1	-
Hebrew, German.....	19	4	16	20	1	-	-
Hebrew, Polish.....	85	52	26	22	6	-	-
Hebrew, Russian.....	4,188	4,460	6,304	9,622	2,674	46	108
Hebrew, n.e.s.....	606	537	649	860	266	18	28
Hindu.....	5	3	5	88	-	1	-
Hungarian.....	756	482	578	833	218	-	-
Icelandic.....	250	205	231	292	145	15	9
Italian.....	8,359	7,590	16,601	24,722	6,228	388	758
Japanese.....	437	765	724	856	592	401	648
Newfoundland.....	2,229	2,598	1,036	496	338	255	1,243
New Zealand.....	116	61	39	24	21	18	12
Norwegian.....	2,169	1,692	1,832	1,647	788	232	303
Polish, Austrian.....	1,065	2,773	4,462	4,310	1,272	-	8
Polish, German.....	43	21	29	46	7	-	-
Polish, Russian.....	800	1,624	4,488	4,507	544	7	3
Polish, n.e.s.....	269	642	966	930	153	1	1
Rumanian.....	511	793	1,116	1,504	361	4	4
Russian, n.e.s.....	6,621	9,805	18,623	24,485	5,201	40	25
Ruthenian.....	2,869	13,346	17,420	18,372	5,830	-	-
Servian.....	50	209	366	193	220	6	1
Swedish.....	3,213	2,394	2,477	2,435	916	177	332
Swiss.....	270	230	246	269	209	42	30
Syrian.....	124	144	232	278	79	3	9
Turkish.....	469	632	770	187	33	-	5
U.S. (via ocean ports).....	203	143	121	121	41	15	20
United States.....	121,451	133,710	139,069	107,530	59,779	36,937	61,389
West Indies.....	398	314	398	474	356	38	293
Other nationalities.....	963	1,655	2,611	5,006	1,710	76	705
<b>Total.....</b>	<b>188,071</b>	<b>216,116</b>	<b>251,890</b>	<b>242,256</b>	<b>101,513</b>	<b>39,873</b>	<b>67,092</b>
<b>Grand total.....</b>	<b>311,084</b>	<b>354,237</b>	<b>402,432</b>	<b>384,878</b>	<b>144,789</b>	<b>48,537</b>	<b>75,374</b>

NOTE.—“n.e.s.” signifies “not elsewhere specified.”

## AREA AND POPULATION.

## 28.—Rejections of Immigrants upon arrival at Ocean Ports and Deportations after admission, by principal causes, 1903-1917.

PRINCIPAL CAUSES.	REJECTIONS AT OCEAN PORTS.											
	1903-1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Accompanying patients..	89	58	60	42	104	53	28	76	58	4	8	580
Bad character.....	74	181	87	98	122	112	80	102	56	17	4	933
Contract labour.....	—	23	—	33	28	3	—	—	—	—	—	87
Criminality.....	14	17	6	9	10	5	4	3	2	4	—	74
Head tax.....	—	—	—	—	—	6	—	—	—	—	—	6
Lack of funds.....	1	85	67	34	1,038	246	204	994	452	38	55	3,214
Likely to become a public charge.....	235	292	66	681	274	164	56	76	71	55	55	2,025
Medical causes.....	1,679	513	216	585	585	256	328	398	319	34	30	4,943
Not complying with regulations.....	30	3	7	33	48	119	55	178	40	11	22	546
Previously rejected.....	—	—	—	—	1	8	1	—	—	—	—	10
<b>Totals.....</b>	<b>2,122</b>	<b>1,172</b>	<b>509</b>	<b>1,515</b>	<b>2,210</b>	<b>972</b>	<b>756</b>	<b>1,827</b>	<b>998</b>	<b>163</b>	<b>174</b>	<b>12,418</b>

PRINCIPAL CAUSES.	DEPORTATIONS AFTER ADMISSION.											
	1903-1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Accompanying patients..	47	26	21	—	18	17	16	10	34	5	9	203
Bad character.....	5	30	71	44	71	120	165	159	128	68	60	921
Criminality.....	22	68	115	130	172	242	334	376	404	329	277	2,469
Medical causes.....	404	392	467	212	222	229	370	570	379	206	98	3,549
Not complying with regulations.....	—	—	—	—	12	8	4	4	—	—	—	28
Public charges.....	98	309	1,074	348	289	343	392	715	789	635	161	5,153
<b>Totals.....</b>	<b>576</b>	<b>825</b>	<b>1,748</b>	<b>734</b>	<b>784</b>	<b>959</b>	<b>1,281</b>	<b>1,834</b>	<b>1,734</b>	<b>1,243</b>	<b>605</b>	<b>12,323</b>

## 29.—Number by Nationalities of Deportations after admission, 1903-1917.

NATIONALITIES.	DEPORTATIONS AFTER ADMISSION.											
	1903-1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
British.....	473	607	1,235	486	458	540	559	952	877	602	186	6,975
American.....	10	37	98	119	169	256	377	405	461	437	324	2,693
Other countries.....	93	181	415	129	157	163	345	477	396	204	95	2,655
<b>Totals.....</b>	<b>576</b>	<b>825</b>	<b>1,748</b>	<b>734</b>	<b>784</b>	<b>959</b>	<b>1,281</b>	<b>1,834</b>	<b>1,734</b>	<b>1,243</b>	<b>605</b>	<b>12,323</b>

## 30.—Juvenile Immigrants and Applications for their Services, 1901-1917.

Fiscal Year.	Juvenile immigrants.	Applications for their services.	Fiscal Year.	Juvenile immigrants.	Applications for their services.
	No.	No.		No.	No.
1901	977	5,783	1910	2,422	18,477
1902	1,540	8,587	1911	2,524	21,768
1903	1,979	14,219	1912	2,689	31,040
1904	2,212	16,573	1913	2,642	33,493
1905	2,814	17,833	1914	2,318	32,417
1906	3,258	19,374	1915	1,899	30,854
1907 <sup>1</sup>	1,455	15,800	1916	821	31,725
1908	2,375	17,239	1917	251	28,990
1909	2,424	15,417			
			<b>Total.....</b>	<b>34,600</b>	<b>359,589</b>

NOTE.—The above are included in the total number of immigrants recorded elsewhere. <sup>1</sup>Nine months.



## IMMIGRATION.

## 31.—Sex, Occupation and Destination of Immigrants for the fiscal year ended March 31, 1917.

Sex.	Males.		Females.		Children.	Totals.
	No.		No.		No.	No.
Viâ ocean ports.....	3,771		6,966		3,248	13,985
From the United States.....	39,303		12,571		9,515	61,389
<b>Totals.....</b>	<b>43,074</b>		<b>19,537</b>		<b>12,763</b>	<b>75,374</b>

Occupations.	FARMERS OR FARM LABOURERS.			GENERAL LABOURERS.		
	Males.	Females.	Children.	Males.	Females.	Children.
	No.	No.	No.	No.	No.	No.
Viâ ocean ports.....	867	584	442	1,409	257	218
From the United States	14,335	2,832	3,655	7,774	815	678
<b>Totals.....</b>	<b>15,202</b>	<b>3,416</b>	<b>4,097</b>	<b>9,183</b>	<b>1,072</b>	<b>896</b>

Occupations.	MECHANICS.			CLERKS, TRADES, ETC.		
	Males.	Females.	Children.	Males.	Females.	Children.
	No.	No.	No.	No.	No.	No.
Viâ ocean ports.....	694	881	475	271	337	95
From the United States	11,734	1,923	1,247	1,784	557	291
<b>Totals.....</b>	<b>12,428</b>	<b>2,804</b>	<b>1,722</b>	<b>2,055</b>	<b>894</b>	<b>386</b>

Occupations.	MINERS.			Female ser- vants.	NOT CLASSIFIED.		
	Males.	Females.	Children		Males.	Females.	Children
	No.	No.	No.	No.	No.	No.	No.
Viâ ocean ports....	32	18	38	2,639	498	2,250	1,980
From the United States.....	733	37	58	1,804	2,943	4,603	3,586
<b>Totals.....</b>	<b>765</b>	<b>55</b>	<b>96</b>	<b>4,443</b>	<b>3,441</b>	<b>6,853</b>	<b>5,566</b>

Destination.	Maritime provinces.	Quebec.	Ontario.	Manitoba.
	No.	No.	No.	No.
Viâ ocean ports.....	1,668	2,432	4,928	1,197
From the United States.....	4,042	8,498	21,150	4,050
<b>Totals, 1917.....</b>	<b>5,710</b>	<b>10,930</b>	<b>26,078</b>	<b>5,247</b>
<b>Totals, 1916.....</b>	<b>5,981</b>	<b>8,274</b>	<b>14,743</b>	<b>3,487</b>

Destination.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
	No.	No.	No.	No.
Viâ ocean ports.....	1,219	1,034	1,505	2
From the United States.....	8,655	11,384	3,297	313
<b>Totals, 1917.....</b>	<b>9,874</b>	<b>12,418</b>	<b>4,802</b>	<b>315</b>
<b>Totals, 1916.....</b>	<b>6,001</b>	<b>7,215</b>	<b>2,836</b>	<b>1</b>

¹Included in British Columbia.

## AREA AND POPULATION.

## 32.—Destination of Immigrants into Canada by Provinces, 1901-1917.

Fiscal Year.	Maritime Prov.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Not shown	Totals.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
1901.....	2,144	10,216	6,208	11,254	14,160	2,600	2,567	49,149	
1902.....	2,312	8,817	9,798	17,422	22,199	3,483	3,348	67,379	
1903.....	5,821	17,040	14,854	39,535	43,898	5,378	1,838	128,364	
1904.....	5,448	20,222	21,266	34,911	40,397	6,994	1,093	130,331	
1905.....	4,128	23,666	35,811	35,387	39,289	6,008	1,977	146,266	
1906.....	6,381	25,212	52,746	35,648	28,728	26,177	1,766	189,064	
1907 (9 m.)	6,510	18,319	32,654	20,273	15,307	17,559	395	124,667	
1908.....	10,360	44,157	75,133	39,789	30,590	31,477	195	262,469	
1909.....	6,517	19,733	29,265	19,702	22,146	27,651	32	146,908	
1910.....	10,644	28,524	46,129	21,049	29,218	42,509	-	208,794	
1911.....	13,236	42,914	80,035	34,653	40,763	44,782	-	311,084	
1912.....	15,973	50,602	100,227	43,477	46,158	45,957	-	354,237	
1913.....	19,806	64,835	122,798	43,813	45,147	48,073	-	402,432	
1914.....	16,730	80,368	123,792	41,640	40,999	43,741	-	384,878	
1915.....	11,104	31,053	44,873	13,196	16,173	18,263	-	144,789	
1916.....	5,981	8,274	14,743	3,487	6,001	7,215	-	48,537	
1917.....	5,710	10,930	26,078	5,247	9,874	12,418	-	75,374	
Totals..	148,805	504,882	836,410	460,483	856,869	354,062	13,211	3,174,722	

## 33.—Record of Chinese Immigration, 1886-1917.

Fiscal Year.	Paying tax.	Exempt from tax.	Percentage of total arrivals admitted exempt from tax.	Registration for leave.	Total Revenue.
	No.	No.	P.C.	No.	\$
1886-91.....	4,590	222	4.61	7,041	239,664
1892.....	3,276	6	0.18	2,168	166,503
1893.....	2,244	14	0.62	1,277	113,491
1894.....	2,087	22	1.04	666	105,021
1895.....	1,440	22	1.50	473	72,475
1896.....	1,762	24	1.34	697	88,800
1897.....	2,447	24	0.97	768	123,119
1898.....	2,175	17	0.78	802	109,754
1899.....	4,385	17	0.39	859	220,310
1900.....	4,231	26	0.61	1,102	215,102
1901.....	2,518	26	1.02	1,204	178,704
1902.....	3,525	62	1.73	1,922	364,972
1903.....	5,245	84	1.58	2,044	526,744
1904.....	4,719	128	2.64	1,920	474,420
1905.....	8	69	89.61	2,080	6,080
1906.....	22	146	86.90	2,421	13,521
1907 <sup>1</sup> .....	91	200	68.73	2,594	48,094
1908.....	1,482	752	33.67	3,535	746,535
1909.....	1,411	695	33.00	3,731	713,131
1910.....	1,614	688	29.89	4,002	813,003
1911.....	4,515	805	15.13	3,956	2,262,056
1912.....	6,083	498	7.57	4,322	3,049,722
1913.....	7,078	367	4.93	3,742	3,549,242
1914.....	5,274	238	4.32	5,450	2,644,593
1915.....	1,155	103	8.19	4,373	588,124
1916.....	20	69	77.53	4,064	19,389
1917.....	272	121	30.78	3,312	140,487
<b>Totals.....</b>	<b>73,669</b>	<b>5,445</b>	<b>6.88</b>	<b>68,525</b>	<b>17,593,056</b>

<sup>1</sup>Nine months.<sup>2</sup>Includes 315 Yukon.

## IMMIGRATION.

## 34.—Record of Oriental Immigration, 1901-1917.

Fiscal Year.	Chi- nese.	Japa- nese.	Hin- doos.	Total.	Fiscal Year.	Chi- nese.	Japa- nese.	Hin- doos.	Total.
	No.	No.	No.	No.		No.	No.	No.	No.
1901.....	7	6	—	13	1910....	2,156	271	10	2,437
1902.....	2	—	—	2	1911....	5,278	437	5	5,720
1903.....	—	—	—	—	1912....	6,247	765	3	7,015
1904.....	—	—	—	—	1913....	7,445	724	5	8,174
1905.....	—	354	45	399	1914....	5,512	856	88	6,456
1906.....	18	1,922	387	2,327	1915....	1,258	592	—	1,850
1907 <sup>1</sup> ....	92	2,042	2,124	4,258	1916....	88	401	1	490
1908.....	1,884	7,601	2,623	12,108	1917....	393	648	—	1,041
1909.....	1,887	495	6	2,388	Total..	32,267	17,114	5,297	54,678

## 35.—Expenditure on Immigration in the fiscal years 1868-1917.

Year.	\$	Year.	\$	Year.	\$	Year.	\$
1868.....	36,050	1881.....	214,251	1894.....	202,235	1907 <sup>1</sup> ....	611,201
1869.....	26,952	1882.....	215,339	1895.....	195,653	1908.....	1,074,697
1870.....	55,966	1883.....	373,958	1896.....	120,199	1909.....	979,326
1871.....	54,004	1884.....	511,209	1897.....	127,438	1910.....	960,676
1872.....	109,954	1885.....	423,861	1898.....	261,195	1911.....	1,079,130
1873.....	265,718	1886.....	257,355	1899.....	255,879	1912.....	1,365,000
1874.....	291,297	1887.....	341,236	1900.....	434,563	1913.....	1,427,112
1875.....	278,777	1888.....	244,789	1901.....	444,730	1914.....	1,893,298
1876.....	338,179	1889.....	202,499	1902.....	494,842	1915.....	1,658,182
1877.....	309,353	1890.....	110,092	1903.....	642,914	1916.....	1,307,480
1878.....	154,351	1891.....	181,045	1904.....	744,788	1917.....	1,181,991
1879.....	186,403	1892.....	177,605	1905.....	972,357		
1880.....	161,213	1893.....	180,677	1906.....	842,668	Total...	24,979,687

<sup>1</sup>Nine months.

## IV.—EDUCATION.

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This section includes a description of the Canadian system of public elementary and secondary education, a description of the facilities for higher education in Canada and a series of statistical tables relating to the public elementary and secondary schools and to the colleges and universities of Canada. A summary of the statistics of illiteracy and school attendance in Canada for 1910, as returned by the Census of 1911, was published in the Year Book of 1914, pages 92-93.

## GENERAL FEATURES OF CANADIAN EDUCATION SYSTEM.

Under the British North America Act, 1867, the right to legislate on matters respecting education was reserved exclusively to the provincial legislatures, subject to the maintenance of the rights and privileges of the denominational and separate schools as existing at the time of union or admission of provinces. In general there are two fundamental systems of education throughout Canada, one that of the Protestant communities, free from the control of religious bodies, and the other



## GENERAL FEATURES OF CANADIAN EDUCATION SYSTEM.

that of the Roman Catholic French and Irish communities in which education is united with the religious teaching of the Roman Catholic Church. In Ontario, Roman Catholics, Protestants and coloured people have each the right to establish "Separate Schools" for elementary education, the local rates for the support of these schools being separately levied and applied. In Quebec, the religious minority in any municipality, whether Roman Catholic or Protestant (the Jews being "Protestants" for all the purposes of the School Law), may dissent and maintain its own elementary and model schools and academies or high schools, the taxation of the minority being separate from that of the majority for the three classes of school. That is to say, the separate system is complete. In Saskatchewan and Alberta a separate school may be established by the minority, whether Protestant or Roman Catholic, subject, however, to identical regulations as to courses, certificates, inspection, etc. In the remaining provinces there are special provisions for the education of Roman Catholics in the larger cities and towns.

In all the provinces the cost of education is defrayed from the public revenues, provincial and local, and public elementary education is free to parents or guardians, except for certain small fees which are payable in parts of the province of Quebec. With the exception of Quebec all the provinces have laws of compulsory education, but under conditions that differ as between one province and another. As a rule, the provincial laws provide for uniformity in the training of teachers, the use of text books and the grading of pupils. Secondary schools or departments, and colleges or universities for higher education, exist under government control in all the provinces, and the three classes of teaching institutions are more or less co-ordinated to allow of natural transition from the lower to the higher. School terms and holidays are arranged to suit climatic and other local conditions; and it is frequently possible for students to work their own way through college and the university. Arrangements for the superannuation of teachers as hereinafter described, are applied in Nova Scotia, New Brunswick, Quebec and Ontario.

Recent movements in the direction of nature study, manual instruction, school gardens, agriculture, domestic science and technical education are all energetically in progress, and in the more progressive provinces the higher education of women is an important feature of university life.

## PROVINCIAL POWERS UNDER THE BRITISH NORTH AMERICA ACT.

The powers of the provincial legislatures respecting education are laid down in Section 93 of the British North America Act, 1867, as follows:

93. In and for each province the legislature may exclusively make laws in relation to education, subject and according to the following provisions:

(1) Nothing in any such law shall prejudicially affect any right or privilege with respect to denominational schools which any class of persons have by law in the province at the union.

(2) All the powers, privileges and duties at the union by law conferred and imposed in Upper Canada on the separate schools and school trustees of

## EDUCATION.

the Queen's Roman Catholic subjects shall be, and the same are hereby extended to the dissentient schools of the Queen's Protestant and Roman Catholic subjects in Quebec.

(3) Where in any province a system of separate or dissentient schools exist by law at the union or is thereafter established by the legislature of the province, an Appeal shall lie to the Governor-General in Council from any act or decision of any provincial authority affecting any right or privilege of the Protestant or Roman Catholic minority of the Queen's subjects in relation to education.

(4) In case any such provincial law as from time to time seems to the Governor-General in Council requisite for the due execution of the provisions of this Section is not made, or in case any decision of the Governor-General in Council on any appeal under this Section is not duly executed by the proper provincial authority in that behalf, then and in every such case, and as far only as the circumstances of each case require, the Parliament of Canada may make remedial laws for the due execution of the provisions of this Section and of any decision of the Governor-General in Council under this Section.

The purpose of these sections was to preserve to a religious minority in any province the same privileges and rights in regard to education which it had at the date of Confederation, but the provincial legislatures were not debarred from legislating on the subject of separate schools, provided they did not thereby prejudicially affect privileges, previous to Confederation, enjoyed by such schools in the province.

**RELIGIOUS INSTRUCTION AND EXERCISES IN THE PUBLIC SCHOOLS.**

Under the powers conferred by the above-quoted section of the British North America Act, each province has passed laws and regulations concerning religious or devotional exercises at the opening or closing of school and the direct religious instruction, if any, to be given to the pupils. As a general rule, denominational teaching, except in the case of the Roman Catholic separate schools, is excluded; but in almost all cases there is provision for instruction in the "principles of Christian morality" as derived from Holy Scripture. In every province the school law contains a conscience clause permitting the withdrawal of any pupil from religious exercises or instruction if so desired by parent or guardian.

The following is a brief description of the regulations in force in each province. In Prince Edward Island the public schools are non-sectarian. The Bible is authorized to be read, but without comment, explanation or remark by the teacher. It is usual to open the schools with the Lord's Prayer. In Nova Scotia the question of devotional exercises is left to the local board of trustees, subject to the conscience clause, but such exercises are in fact usually held. In New Brunswick the regulations provide that it shall be the privilege of every teacher to open and close the daily exercises of the school by reading a portion of Scripture (out of the common or Douay version as he may prefer) and by offering the Lord's Prayer, and that his duty shall be "to maintain a deportment becoming his position as an educator of the young, and to strive diligently to have exemplified, in the intercourse and conduct of the pupils throughout the school, the principles of Christian morality." The regulation further enumerates certain "moral actions and habits" concerning which it shall be the duty of the teacher to give instruction

## RELIGIOUS INSTRUCTION AND EXERCISES.

to the school as occasion may require. He may not, however, use in school any religious catechism nor interfere with the religious tenets of any pupil.

In the Protestant schools of the province of Quebec the regulations provide that the first half-hour of each day shall be devoted to the opening exercises, Scripture reading, singing and prayer, instruction in Scripture and morals, including readings and lessons upon godliness, truthfulness, honour, respect for others, good manners, temperance, health, kindness to animals, etc. Bible study is devised upon a plan of graded readings, including, for the first year, from the New Testament, events in the life of Our Lord, and from the Old Testament, outlines of chief events to the end of the life of Joseph. Provision is also made for the committal to memory of the Lord's Prayer, the Beatitudes and six named texts of Scripture.

In Ontario the regulations provide that every public school shall be opened with the reading of the Scriptures and the repeating of the Lord's Prayer, and shall be closed with the Lord's Prayer, or the prayer authorized by the Department of Education. The Scriptures are read daily and systematically, and alternative selections are prescribed for adoption by the local board of trustees. This board may also order readings of the Scriptures by both pupils and teachers daily at the closing of the school, and in addition the repeating of the Ten Commandments once a week and the memorization of passages selected by the principal from the Bible. Finally, a clergyman of any denomination has the right to give religious instruction to the pupils of his own denomination at least once a week after the hour of closing the school in the afternoon. A provision of the Ontario school law lays it down as the duty of every teacher "to inculcate by precept and example respect for religion and the principles of Christian morality and the highest regard for truth, justice, loyalty, love of country, humanity, benevolence, sobriety, industry, frugality, purity, temperance, and all other virtues."

In Manitoba the question as to whether there shall be religious exercises in a public school is entirely at the option of the school trustees for each district; but such exercises must be conducted according to the regulations of the Advisory Board, which is a central authority of the province. It is provided that religious teaching shall take place in any public school (a) if authorized by resolution of the majority of the school trustees, and (b) on petition to the trustees of a stated number of parents or guardians of the children attending school. It is further provided that the religious teaching shall take place between half-past three and four in the afternoon, and that it shall be conducted by any Christian clergyman whose charge includes any portion of the school district or by any person or teacher authorized by him. Provision is also made that a Roman Catholic or non-Roman Catholic duly certified teacher shall be appointed on petition to the trustees where the average attendance of Roman Catholic or non-Roman Catholic children reaches a given minimum. Other provisions of the law prescribe the segregation of Roman Catholic and non-Roman Catholic children during the time that religious instruction is being given.



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In Saskatchewan and in Alberta the local board of trustees has the power to prescribe the religious instruction that shall be given, but this instruction may only be given during the half-hour preceding the close of the school in the afternoon, except that the board may direct that the school be opened by the recitation of the Lord's Prayer.

In British Columbia the public schools are conducted on strictly secular and non-sectarian principles. The school law provides that "the highest morality shall be inculcated, but no religious dogma or creed shall be taught." The Lord's Prayer may be used in opening or closing school.

**Separate School System in Ontario.**—The public schools law of Ontario provides for the establishment as may be required of separate schools (a) for Roman Catholics, (b) for Protestants, and (c) for coloured people, the whole being governed by the Separate Schools Act of the Ontario Legislature. For Roman Catholics the Act provides that not less than five Roman Catholic heads of families resident within any public school section may convene a public meeting for the establishment of a separate school, trustees being elected by the meeting for their management. On declaring their intention to support the separate school, Roman Catholic ratepayers are relieved of the obligation to contribute to the ordinary public schools, and, instead, are rated for the support of the separate school. The separate school shares in legislative grants received from the central authority, and provided for by the Provincial Legislature. The schools are managed by the boards of trustees, two from every ward in cities and towns and six in every village. Under the management of the board of trustees the children of the schools receive distinctive religious training according to the tenets of the Roman Catholic Church; but in matters of secular education the schools are subject to the ordinary school law under the administration of the Department of Education of the Provincial Government; and the teachers, who are of the Roman Catholic faith, are subject to the same examinations and receive their certificates of qualification in the same manner as the ordinary public school teachers. Protestant separate schools may only be established in school sections where the teacher is a Roman Catholic.

**Separate School System in Quebec.**—In Quebec, separate schools are an important integral part of the system of public education, which in its application is adapted to the peculiar conditions of the French-speaking province of the Dominion. Whilst the French Roman Catholic element largely predominates, there is in most of the populous centres a strong Protestant minority, and in certain parts, like the Eastern Townships, the Protestants are frequently the local majority. In practice, the main public schools of a locality are either Roman Catholic or Protestant, according to the religion of the majority. The minority, Roman Catholic or Protestant as the case may be, have then the right to dissent and to form a board of trustees, managed under generally the same conditions as the schools of the majority. The chief difference between the majority, or commissioners' schools, and the minority, or trustees' schools, is that the commissioners are five in number whilst the trustees are not more than three. Whereas in



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Ontario the separate schools are in almost all cases synonymous with Roman Catholic schools, in Quebec the separate schools may be either one or the other; in local education parlance, the distinction between the two classes is not Roman Catholic and Protestant, but "commissioners' schools" and "trustees' schools." The procedure for the establishment of a separate school is similar to that of Ontario, one difference, however, being that in Quebec any number of ratepayers may give the statutory notice of dissent. If the dissentient ratepayers amount to two-thirds of those ratepayers whose religion differs from that of the majority, then all the ratepayers professing the same religion as that of those who have given the notice, and whose children do not attend the majority schools, are deemed to be dissentients and are rated accordingly. The religious training prescribed for the Roman Catholic schools consists in prayers, the teaching of the catechism, of sacred history, and of manners.

**Arrangements in other Provinces.**—There are no separate schools in the Atlantic provinces; they formerly existed in New Brunswick, but were abolished by the Legislature in 1871. In Manitoba separate schools were established in 1871, very soon after the creation of the province, but they were abolished by the Manitoba Legislature in 1890. In Saskatchewan and in Alberta there is provision for the establishment of separate schools by either Protestant or Roman Catholic minorities under general conditions similar to those above described.

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## PRINCE EDWARD ISLAND.

**General Organization.**—The Public Schools Act of 1877 forms the basis of the existing system of education in Prince Edward Island. Supreme control lies with the Board of Education, which consists of the members of the Executive Council, the Chief Superintendent of Education and the principal of the Prince of Wales College and Normal School. The province is divided into school districts. In urban centres these consist of the whole city or town, and for rural communities each district contains an area of about four square miles.

**Local Management.**—The local management for each school district is in the hands of three trustees, one of whom retires annually. In Charlottetown and Summerside there are seven trustees, four of whom are appointed by the Board of Education and three by the city council. The schools are divided into (1) primary, (2) advanced or graded and (3) first class schools, and the teachers are trained in the Normal School Department of the Prince of Wales College. The annual school meeting is held in every district on the third Tuesday in June, when moneys are voted for all school purposes, and a trustee is elected in place of the retiring member of the board. The school year consists of two teaching terms, one ending on June 30 and the other on December 31. The vacations are: six weeks beginning July 1, two weeks in October, and the last week in December. Charlottetown and Summerside arrange for their own times of vacation with the approval of the board. A majority vote at an annual meeting

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empowers trustees to take July and August as the vacation period. There are ten inspectors of schools in as many inspectorial divisions. Primary education is free and compulsory; but the regulations regarding compulsory attendance are not very rigorously enforced.

**Sources of Income.**—The schools are supported by government grants, supplemented by the local rates levied by assessments on property. There may be also a poll tax not exceeding \$1, if the ratepayers at the annual meeting so decide.

## NOVA SCOTIA.

**General Organization.**—Education in Nova Scotia is under the general administrative control of the Council of Public Instruction, which consists of the Executive Council of the province with the Superintendent of Education as Secretary. The Premier, who is also the Provincial Secretary, is practically the Minister for Education, although he presides in the Council and shares his responsibility with all the other members of the Cabinet. The Secretary of the Council of Public Instruction, as Superintendent of Education, is the chief executive officer, occupying a position virtually the equivalent of a deputy minister. An Advisory Board of Education consisting of seven members, five appointed by the Lieutenant-Governor in Council and two elected biennially by the teachers at the regular conventions of the Provincial Educational Associations, advises the Council and the Superintendent on matters referred to it by them or otherwise coming under its jurisdiction under the statute. There are 33 boards of district commissioners, of not less than seven members each, appointed by the Council of Public Instruction—each board covering a territory averaging half a county. Their principal function now is the control of the size and boundaries of school sections, the condemning of defective schoolhouses, the appointing of trustees and the authorizing of the levy of school rates, when these are not regularly or effectively provided for. The executive officer of each board is the inspector within whose division the district lies. He is not only the clerk of the board, but the most important member of it.

**Inspection.**—There are twelve regular inspectors, whose inspectorial divisions average a county and a half. They are also the agents of the Superintendent of Education in paying the provincial aid to teachers and the municipal fund to trustees. They examine, pass and compile the statistics of the annual returns from teachers and school trustees, and are responsible for the legal administration and conduct of the schools under their jurisdiction. There is also a Director of Rural Science Education for the province; an Inspector of Mechanic Science, Domestic Science, and Technical local schools; and a special Visitor for the bilingual French (Acadian) schools.

**Elementary Schools.**—The province is further divided into school sections, each of which is a self-governing educational corporation, comprising the territory of a city, town, or a rural area approximating four miles in diameter, and electing three trustees for the local management of the schools. At the annual meeting of the school section, held on the last Monday in June—except in fishing settlements, where the Council of Public Instruction on petition of the school board fixes the

## ELEMENTARY AND SECONDARY EDUCATION IN CANADA.

first Monday in March before the fishermen go to sea—the board of three school trustees presents its report for the past year and its estimates for the next year to the ratepayers for their decision. The senior trustee retires, and his successor is elected for three years. The Board has full control of all school affairs, subject to the conditions fixed by law and to the oversight of the inspector. In towns, the school board consists of three members of the town council and two members appointed by the Government. In Halifax six commissioners are appointed by the City Council and six are appointed by the Provincial Government. The school year technically begins on August 1, in the middle of the summer vacation. The teaching term opens at the end of August and closes at the end of June. There are two weeks of vacation at Christmas. The operation, in each section, of legal provisions as to compulsory attendance is dependent upon their adoption by a vote of the ratepayers, except in cities and towns, where no option is allowed. Subject to certain exemptions, compulsory attendance is general for children from 6 to 16 in the cities and towns and from 7 to 12 in the country.

**Sources of Income.**—The school revenue is derived from (1) the local or sectional assessment voted at the annual meeting; (2) the municipal school fund amounting to 35 cents per capita of each rural municipality (of which there are 24), but levied on the real and personal property; and (3) the provincial aid to teachers. The municipal school fund is distributed to school boards as follows: \$25 for each teacher employed, and the balance, about an equal aggregate, according to the attendance of pupils. The law allows municipalities to raise a larger fund; three counties have now a fund based on 50 cents per capita, and grant \$50 for each teacher employed. The provincial aid is paid to the teacher in proportion to the class of license held. Class D (third class) receive \$60 per annum; Class C (second class) \$90; Class B (first class) \$120; Class A (superior first class) \$150; and Class "Academic," whose scholarship must henceforward be of university graduate grade, \$180 or \$210, according to position.

**School Grades.**—The public school programme forms a single system from grade I to grade XII, each grade covering the average annual work of a pupil. The first eight are also known as the "common school," and the remaining four as the "high school" grades. In 1916 there were 2,837 schoolrooms in operation. Of these, 1,659 were schools with only one teacher, and 1,083 were giving instruction to a few pupils of high school grade in addition to the common school instruction. Four hundred and fifty-three graded schools gave some high school instruction in addition to the common school work. There were only 64 pure high school systems in operation. There were in the same year (1916), 99,463 pupils in the common school grades—of whom 5,941 presented themselves at the provincial terminal examinations for "pass" certificates of one of the four high school grades—and 9,726 in the high school grades.

**Teachers.**—There are five classes of teachers for the regular (academic) school system, namely: Third (or D), Second (or C), First (or B), Superior First (or A), and the Academic. The general scholarship basis of each is respectively as follows: Provincial high school pass



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of grade IX, X, XI, XII, or graduation from a recognized university; plus normal training, physical training under the Dominion Department of Militia, age, health and character conditions. Without normal training the teacher's minimum professional examination pass admits the candidate to a class one degree lower; and third class licenses may be granted without the physical training certificate.

**Superannuation of Teachers.**—After thirty-five years' teaching, or thirty years' if sixty years of age, teachers can retire, drawing thereafter semi-annually their respective provincial aid grants. Academic teachers can draw double the amounts of their grants or more according to their importance as measured by position and salary—no annuity to exceed \$600. Normal college teachers and inspectors can retire with annuity under somewhat similar conditions.

**Secondary Education.**—This is provided for partly by the four high school grades of the public schools (IX to XII) and partly by county academies, of which there are eighteen in the province, situated usually in the county towns. In return for an extra grant called the "Academic," the county academy admits free any pupil from the county who passes the county academy entrance examination, which is the common school-leaving examination on the standard of grade VIII. Every high school must admit pupils free from within its own school section. In 1916, out of 9,726 high school pupils, 2,057 were attending the county academies. Provincial examinations are held for the high school grades at about sixty-five stations during the last week of school term. All candidates, whether making a "pass" or not, receiving a certificate showing the proficiency of the candidate in each subject. These certificates are accepted for what they are worth for admission to the normal and other colleges and universities, not only in Nova Scotia, but by many provinces and states abroad. The relation of the secondary schools to higher institutions is practically as close as is that of the common schools to the high schools, due especially to the device of four grades of high school certificates containing estimates of proficiency in each subject. The universities and colleges of the province accept these certificates so far as they cover their respective matriculation standards in each subject.

**Manual Training, etc.**—There is a threefold system affiliated to the regular (academic) school system: "Mechanic Science"—wood, paper and iron work, mostly in the cities and towns; "Domestic Science"—cooking, laundry and other household work, mostly in the cities and towns; "Rural Science"—the elements of science and art underlying agriculture, horticulture and forestry, school gardens and home gardens under school direction. There is a Director of Rural Science Education, and the members of the staffs of the normal and agricultural colleges, at Truro, co-operate with the Dean of the Rural Science Training School in conducting a vacation course in July and August for teachers desirous of obtaining "rural science" diplomas. There is also an inspector for the Mechanic and Domestic Science schools which receive special grants.

**Miscellaneous.**—Phenological observations have for many years been conducted by the pupils of the schools under the direction of the



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teachers, which are annually reported to the Education Office, where they are compiled, preserved and reported for publication in the meteorological service, in the Proceedings of the Royal Society and the Transactions of the Nova Scotian Institute of Science. There are a school library system, consolidated schools, government night schools, industrial and truant schools, and provision for retarded pupils. Medical and dental inspections of schools are now being introduced into all the cities and some of the towns. There is a school for the Blind, and one for the Deaf; and the Victoria School of Art and Design is co-operating with and stimulating the elementary art work of the public schools.

## NEW BRUNSWICK.

**General Organization.**—The public schools of New Brunswick are free and non-sectarian. School privileges are provided free to all children resident in a district between the ages of six and twenty. The Board of Education, with the Chief Superintendent of Education as secretary, is in supreme control of the public schools. The board is composed of the Lieutenant-Governor, the members of the Executive Council, the Chancellor of the University of New Brunswick and the Chief Superintendent of Education. Three members of the Executive, with the chairman (who must be the Lieutenant-Governor, or, in his absence, the premier) and the Chief Superintendent of Education, constitute a quorum.

**Courses of Instruction.**—The common school course includes the first eight grades of instruction. The high school course provides for work beyond the eighth grade, and prepares students for the university.

**School Districts.**—A rural school district must contain an area of at least three and one-half square miles, or must have at least fifty children of school age. Each city and town is usually a school district. In rural districts, schools are under the control of a board of trustees, consisting of three ratepayers of the district, elected for a term of three years. In cities and towns the board of trustees consists of from nine to eleven members, the majority of whom are appointed by the city or town council, and the remainder by the Executive Council of the province. Two of the members may be women, one appointed by the city or town council and one by the Executive Council.

The school year technically begins on July 1 and ends on June 30, and is divided into two terms, one beginning about August 26 and ending on the Friday preceding Christmas week, and the other beginning early in January and ending June 30. There are eight weeks vacation in summer, beginning July 1, and two weeks in winter, between terms. There is also an Easter vacation, extending from Good Friday until the following Wednesday. A compulsory attendance law becomes operative only when adopted by the annual school meeting, which is held on the second Monday in July, or when adopted by the city or town council in urban school districts.

**Support of Schools.**—Schools are supported from three sources, viz., government grants, county fund grants, and local district assessment. The county fund is provided for by municipal assessment, and is a sum equal to sixty cents per head of the population, according to the last

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decennial census. The trustees receive from the county fund \$30 per annum for each school or department in operation the full term. The balance of the county fund is distributed among the schools of the county pro rata, according to the attendance of a school as compared with that for the county. The government grants are made upon the basis of the qualifications and length of service of the teachers, under conditions prescribed by the school law. Special grants are given to consolidated schools and for the conveyance of children. All other funds for schools must be provided by direct taxation upon the local school district.

**Secondary Education.**—This is provided for in grammar and superior schools. The law provides for the establishment of one grammar school in each county, and fourteen of the fifteen counties of New Brunswick operate grammar schools. Grammar schools must provide for instruction in grades IX, X and XI. A grammar school is free to all pupils resident in the county in which it is situated, and above grade VIII of the graded school course. Only one grammar school in the province, that in St. John, provides for a four years' course. One superior school may be established in each county for every 6,000 inhabitants, or a majority fraction of 6,000. An additional superior school may be established on the recommendation of the school inspector. A superior school may be required to provide instruction in the high school grades IX and X and may provide for instruction in grade XI. There are about fifty superior schools in the province. A superior school is free to all pupils residing within the parish in which the school is established, and who are above grade VI of the graded school course.

**Consolidated Schools.**—Consolidated schools have been established at Riverside, Florenceville, Hampton, Kingston and Rothesay. A consolidated school district must include not less than three rural school districts, and must provide for instruction in household science, manual training and school garden work, in addition to the regular school work of the grades. These schools are supported in the same way that other schools are, viz., by government and county fund grants and by local assessment. In addition to these grants, a consolidated district receives a special government grant, usually \$1,000 per annum. Children are conveyed from remote parts of the districts in vans provided by the district, and the government pays one-half the cost of conveyance.

**Manual Training and Household Science Teachers.**—Manual training and household science departments are operated by school boards in a number of the cities and towns outside of the consolidated schools. The government pays one-half the cost of equipment of manual training and household science departments, also one-half the cost of the initial supply of materials. Household science and manual training teachers who devote their whole time to the work receive a government grant of \$200 per annum. Teachers who teach these subjects not less than three hours per week, in addition to the regular work of the school, receive a government grant of \$50 per annum. The normal school provides training in these branches.

**Schools for Deaf and Blind.**—The Board of Education does not provide or control these schools, but grants are made to them at the

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rate of \$125 per year, for each pupil in attendance, by both the Government and the Municipality where the pupil has a settlement. The New Brunswick School for the Deaf, at Lancaster, St. John Co., the School for the Deaf, at Halifax, N.S., and the School for the Blind, Halifax, N.S., provide school privileges for the deaf and the blind children of New Brunswick.

**Superannuation of Teachers.**—Provision is made for the pensioning of teachers. Male teachers of the age of sixty, and female teachers of the age of fifty-five years, may, upon retiring after thirty-five years of service in the public schools, and upon application to the Board of Education, receive a yearly pension for life, equal to one-half of their annual salary during the last five years of their service in the schools, provided, however, that no pension shall exceed \$400 per annum.

**Physical Training.**—All teachers, before being admitted to the examinations for license, are required to hold certificates of qualification to teach physical drill, as prescribed in the text published by the Executive Council, Strathcona Trust. Trustees of schools are required to make provision for giving this instruction in the schools under their charge.

**Inspection.**—The province is divided into eight inspectorial districts, with one school inspector for each district. It is his duty to visit all ungraded schools in his district once in each school term and each graded school or department once in each year. He is required to make monthly reports of the visitation of schools to the Education Department, and generally to assist the department in promoting educational efficiency in the schools of his district.

**Normal School.**—A normal and a model school for the training of teachers are provided for by the Board of Education; they are situated at Fredericton. Teachers entering for a class higher than the third or lowest class must attend the normal school at least one school year. The normal school year begins on the first teaching day in September and ends about June 1.

**School Gardens.**—This department of work is chiefly under the control and direction of the Department of Agriculture, and government grants are made to teachers and trustees of districts in which school gardens are maintained from the moneys provided for agricultural education. The work is supervised and directed by an official called the Director of Elementary Agricultural Education. Agricultural schools for the qualifying of teachers are held annually at Woodstock and Sussex. Any board of school trustees that provides for and satisfactorily maintains instruction in elementary agriculture, with school garden, in accordance with the course prescribed by the Board of Education in this subject, is entitled to receive a special grant of \$50 per annum for the first year, and thereafter \$30 per annum. A partial course certificated teacher receives at the rate of \$30 per school year, and a full course certificated teacher receives at the rate of \$50 per school year.

## QUEBEC.

**General Organization.**—The system of education in the French-speaking province of Quebec differs fundamentally from that of the



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other provinces. It has its roots in the religious organization of the Roman Catholic Church and dates from the French régime (1608 to 1759). Prior to Confederation important laws were passed in 1836, when the first steps were taken towards division of the province into school municipalities; in 1841, when a Department of Education was established; and in 1846, when an Act was passed which is the basis of the existing school law of the province. At present the school organization of Quebec is under the control of a Department of Public Instruction, presided over by a Superintendent of Public Instruction. Where the duties of this officer are not specifically defined by law he receives directions from the government through the Provincial Secretary. There is no special Minister of Education for the province. The Council of Public Instruction is composed of all the Roman Catholic Bishops, or Vicars Apostolic, whose dioceses or parts of whose dioceses are in the province of Quebec, now numbering sixteen, an equal number of Roman Catholic laymen appointed by the Crown and an equal number of Protestants similarly appointed.

**Roman Catholic and Protestant Committees.**—The Council is divided into two Committees, one composed of the Roman Catholic and the other of the Protestant members. The Roman Catholic Committee has, in addition to the full members of the Council, four associate members, two being priests, principals of normal schools, and two being laymen, officers of public instruction. The Protestant Committee has five associate members elected by the Committee, and one member annually elected by the Protestant Teachers' Provincial Association. The associate members of the Protestant Committee have the same powers as the other members of the Committee, but do not form part of the Council of Public Instruction. School questions in which the interests of Roman Catholics and Protestants are collectively concerned are decided by the whole Council; but ordinarily the Committees meet separately and have independent and final jurisdiction over schools of their own faith. Each Committee makes regulations subject to the approval of the Lieutenant Governor in Council (1) for the organization, administration and discipline of public schools; (2) for division of the province into inspection districts; (3) for normal schools; (4) for boards of examiners; (5) for the examination of candidates for school inspector; (6) for the school holidays. The Superintendent is assisted by a staff of fifty-two inspectors under two Inspectors-General, one for the Roman Catholic schools and one for the Protestant schools.

**School Municipalities.**—The basis of the school organization is the school municipality, which is established solely for education purposes. Except in the cities the school municipalities are created by the Lieutenant-Governor on the recommendation of the Superintendent of Public Instruction.

**Board of School Commissioners.**—The local authority in each school municipality is vested in a board of five school commissioners elected by the ratepayers to serve for three years. The board is responsible for the erection, equipment and maintenance of schools, the administration of the school property and the fixing of the school assessment and monthly dues from the parents. Its annual report to the Superinten-



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dent of Public Instruction includes a census of the children from five to eighteen years of age, the rate of the yearly assessment and monthly fee and the amount collected. In the cities of Montreal and Quebec the boards are not elected but are appointed, and in Montreal the rate of taxation is fixed by provincial statute.

**Sources of Income.**—The financial resources of the school municipalities comprise (1) the sums raised by local rates and (2) grants made by the Legislature. The former consist of the school assessment, which is levied on all rateable property of a school municipality, and the monthly fee, which may be collected for every child who attends or who should attend the public schools. The grant of the Legislature is divided proportionally to the number of the children enrolled.

**Elementary Schools.**—The primary or elementary schools are classified as either Roman Catholic or Protestant, which is usually equivalent to a classification as French and English respectively, both as to race and language. The Irish Roman Catholics are usually classified among the Roman Catholics without distinction as to language. School attendance is not compulsory. The school age is generally understood to be from seven to fourteen years, but children have the right to enter at five years of age and continue until they are eighteen. Before attaining this latter age they have either completed their education or have entered the intermediate or the secondary schools. In the city of Montreal, elementary education is free to the Protestant and Jewish children in the schools of the Protestant commissioners. In nearly all other elementary schools in the province fees are charged at a rate which cannot exceed fifty cents a month nor be less than five cents, but school boards may by resolution abolish the monthly fee. The average monthly fee is about twenty-five cents. It is payable for each child from seven to fourteen whether attending school or not. School fees cannot, however, be exacted from indigent persons, nor for insane, deaf, dumb or blind children, nor for children absent on account of prolonged illness or attending schools elsewhere. The fee is rather a poll tax than a fee. It is collected by the treasurer of the school board, generally together with the ordinary tax on real estate. In no case is a teacher allowed to receive it from the pupils, and the law provides that no child from seven to fourteen may be excluded from school for non-payment of monthly fees.

**Secondary Education.**—As a general rule secondary education is under the same board of commissioners as that which controls the elementary or primary schools. The secondary schools comprise model or intermediate primary schools and academies or higher primary schools. In the primary elementary schools there are four grades, in the primary intermediate or model two, and in the higher primary or academic two. The course of study is a continuous one for the three classes of schools. The Roman Catholic secondary schools, provided by the ordinary school boards, are either maintained by taxation, fees and government grants, or they are "independent," being supported by fees, government grants and in some cases subsidies from school boards. They are subject to government inspection, are required to follow the authorized course of study and to observe the regulations of the Roman Catholic Committee.

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Of the intermediate schools there are 552, controlled by school boards and attended by 95,091 pupils, and 121 independent schools, attended by 10,740 pupils. The board schools are almost invariably mixed, whilst many of the independent are for either boys or girls. The secondary board schools are eighty-two in number and have an attendance of 30,190; there are also 155 independent secondary schools, with an attendance of 25,052. Most of the latter are boys' schools under the direction of friars, or girls' schools under nuns. Many of the school boards employ religious rather than lay teachers. In these two classes of schools 4,700 religious teachers are employed with 923 lay teachers.

**Roman Catholic Classical Colleges.**—These are twenty-one in number, with an attendance of 8,251, and are staffed by 717 religious and thirty-seven lay professors. They are all under the control of the bishops of the various dioceses and are carried on with some slight assistance from the government. They are residential colleges which boys may enter at twelve, while doing their elementary work, and in which they may continue until they fit themselves for the B.A. or B.Sc. degree, or for entrance upon the study of the learned professions. They do elementary, secondary and even university work, the degrees being conferred by the University of Laval, to which they are affiliated. Commercial classes are also included and are taken by about one-third of the total number of pupils.

**Protestant Secondary Schools.**—These are provided by the ordinary school boards and are supported in the same way as the elementary schools. They are divided into model or intermediate schools and academies or secondary schools. Two high schools, one in Montreal and one in Quebec, succeeded two Royal grammar schools, which were established in 1816. Since Confederation, each has received a grant from the province, and the Lieutenant-Governor has the right of nominating fifty free scholars for the higher classes of these two high schools. There are thus always in attendance at these two schools fifty free scholars holding what are called "Government Scholarships." About fifty scholarships entitling the holders to free tuition in the high school, carrying them to university matriculation, are also offered by the Protestant School Board of Montreal, and a similar plan is followed in Quebec, the scholarships being, however, fewer in number. There are other secondary schools in the province, including a grammar school at Lennoxville under the control of the Church of England, a boarding school for both sexes at Stanstead controlled by the Methodist Church of Canada, but receiving a government grant.

**Training of Teachers.**—Teachers are trained in normal schools, in the universities or not at all. Every teacher in schools under the control of the school commissioners or trustees must hold a diploma conferred by a normal school or a board of examiners. Ministers of religion and the members of a religious corporation of either sex, instituted for teaching purposes, are exempt from the regulation. Roman Catholic teachers in secondary schools are trained in normal schools with those of the lower grade. There are no special training colleges for secondary teachers in Protestant schools, but McGill University has recently founded a Chair of Education, and teacher-training facilities also exist at Bishop's College.

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**Superannuation of Teachers.**—Pensions are paid from a fund, maintained partly by contribution from the Government and local authorities and partly by stoppages from the salaries of teachers. All teachers, excepting those in holy orders and nuns, must contribute annually two p.c. of their salaries, whether wishing to participate in the benefits or not. Teachers without certificates must contribute, but receive no pensions till they have taken certificates. A male teacher may contribute three p.c. of his salary, and his widow will receive a half pension. A teacher may receive a pension after teaching for twenty years and reaching the age of fifty-six, or after making twenty contributions to the fund if retiring on account of ill-health. A teacher retiring because of ill-health, after teaching more than ten but less than twenty years, may withdraw all payments without interest; a teacher who has served less than ten years forfeits all payments. The pension for a man is as many fiftieths of his average salary as the number of years that he has served. A woman receives the same pension increased by a half, but not more than 90 p.c. of her salary. The maximum in either case is \$1,050 per annum.

## ONTARIO.

**General Organization.**—In Ontario, education is under the control of a Department of Education, conducted by virtue of the Department of Education Act, passed by the Ontario Legislative Assembly. The Department is presided over by a Minister of Education as its political head. A Deputy Minister of Education acts as permanent administrative chief, and a Superintendent of Education has the general supervision and direction of schools, teachers' examinations and school inspectors. Under the control of the Department are public elementary schools (including kindergartens), continuation schools, night schools, high schools, collegiate institutes, art schools, model schools, normal schools, teachers' institutes, libraries, technical and industrial schools. As now organized, the Ontario system of education may fairly be described as an organic whole, elementary, secondary and higher education being duly co-ordinated.

**Elementary Education.**—Elementary education in Ontario owes its main features to the late Rev. Dr. Egerton Ryerson, who, appointed Chief Superintendent of Education in 1844, held this office for thirty-two years. From the Common Schools Act of 1846 his term of administration included a successive series of Education Acts culminating in the Ontario School Law of 1871 which gave effect to the following principles: (1) free tuition; (2) compulsory education of children of school age; (3) county inspection and (4) uniform examinations for promotion to the high schools. Under the existing law, and especially the Public Schools Act, elementary education is provided for in Public Schools, and in what are known as "Separate Schools" for the children of Roman Catholics. Both of these classes of schools are controlled by boards of trustees. In rural districts the townships are divided into school sections, and the trustees, three in number, hold office for three years, one going out of office annually, when his successor is elected.



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In urban districts each ward is represented by two trustees, or in municipalities, where there is no division into wards, six trustees are elected. The duties of the trustees as laid down by the Public Schools Act include the provision, equipment and maintenance of schools, the engagement of teachers and the preparation of financial estimates. The legal school age is from five to twenty-one years and the compulsory age of attendance is from eight to fourteen. The financial support of the schools is derived from three sources, viz., (1) the appropriation from the Legislature; (2) county rates and (3) municipal assessments.

**Secondary Education.**—Secondary education in Ontario is provided by continuation schools (in connection with the public and the separate schools), high schools and collegiate institutes, the latter having superior equipment and employing more teachers of higher attainments than those of the high schools. They are controlled by trustees whose duties are similar to those of the public school trustees, and they are supported financially from four different sources: (1) government grants; (2) county grants; (3) district or municipal grants and (4) fees from students. Only graduates in arts of a university within the British Dominions may hold the position of principal in these schools. In June every year a uniform examination called the "entrance examination" is held, and only those pupils who pass it, or who have been specially recommended by the teacher as fit to pass it, are admitted to a high school or collegiate institute.

**Training of Teachers.**—Elaborate provision is made for the training of teachers for elementary schools by means of a number of county model schools, and of seven normal schools, with model or practice schools as adjuncts, situated at Toronto, Hamilton, Ottawa, London, Peterborough, Stratford and North Bay. Teachers for the highest grade of certificate in the public schools, and all those in high schools and collegiate institutes, are trained at one or other of the faculties of education at Queen's (Kingston) and Toronto Universities. Every position from the lowest in the kindergarten to the highest in a collegiate institute must be filled by a trained teacher, and no permanent teaching certificate is granted to any candidate who does not possess the threefold qualifications of scholarship, a knowledge of pedagogical principles and successful practical experience. Public school teachers, except those of the lowest grade, who are trained in county model schools and whose certificates are valid only in sparsely settled districts, must have a second class certificate.

**Superannuation of Teachers.**—The Teachers' and Inspectors' Superannuation Act, 1917, establishes a superannuation fund to which all teachers and inspectors must contribute annually two and a half p.c. of their salaries. The Government adds a sum equal to the amount of these contributions. In the case of teachers employed by the Government, or by any board or corporation, the contributions are to be stopped out of the salaries. Every teacher or inspector retiring after forty years' service is to receive an annual allowance equal to one sixtieth of the average salary during the last ten years of employment multiplied by the number of years of employment. Those retiring after thirty years are to receive an allowance "actuarially equivalent" to the above. On retirement



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owing to ill-health after fifteen years' service the full allowance for forty years' service is to be paid. The contributions are to be refunded to the representatives of a person who dies while still serving, and may be refunded to a person retiring after five years' service if this is found to be permissible after an actuarial valuation of the fund to be made in 1921, and every three years thereafter.

**Private Schools.**—There are also a number of private educational institutions, including, for boys, Upper Canada College, Toronto; St. Andrew's College, Toronto; Trinity College School, Port Hope; Ridley College, St. Catharines; and Ashbury College, Ottawa; for girls, Bishop Strachan School, Toronto; Havergal College, Toronto; Moulton College, Toronto; Branksome Hall, Toronto; St. Margaret's College, Toronto; Westminster College, Toronto; Ontario Ladies' College, Whitby; Alma College, St. Thomas; and the Presbyterian Ladies' College, Ottawa; and for boys and girls, Pickering College, Newmarket; and Woodstock College, Woodstock; besides convent schools in Toronto, Ottawa, Hamilton, Brantford and London.

## MANITOBA.

**General Organization.**—The elementary and secondary schools of Manitoba are under the control of a Minister of Education, who is advised and assisted by a Deputy Minister and a Superintendent. An advisory board, composed of twelve members, prescribes curricula, authorizes text books, grants standing and controls examinations. Two of the members of this board are elected by the public school teachers of the province, one by the high school teachers, one by the inspectors; and the rest are appointed by the Department of Education. Two of these appointees are selected from and represent the rural school trustees of the province.

**Elementary Education.**—Education is free and compulsory. The school district is the unit of administration, and the average rural district in Manitoba comprises an area of about sixteen square miles. Each school district receives from the provincial treasury the sum of seventy-five cents per teacher per day. In addition to this the municipality, which may contain from ten to fifty school districts, raises over its whole area a levy known as the "general school tax," which is distributed to the various districts on a basis of \$1.20 per teacher per day. The balance of the budget is raised by a special tax upon the lands comprising the district. In addition to the grant of seventy-five cents per day from the provincial treasury referred to above, there may be paid from this source a further grant of \$100 if the people in the locality are unable through poverty to raise a sufficient sum to operate their school, and an additional \$100 grant is given if the district has been formed in newly settled territory beyond the pale of municipal organization.

**Secondary Education.**—The course of studies provides for eight grades in the elementary school, and upon its completion the pupil writes an examination known as the "entrance." If he passes this he may enter one of the secondary schools. When ten or more pupils

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above the entrance attend a school having two or more departments, the school board may make application for intermediate standing. In order to gain this they must employ a principal holding at least a first-class professional certificate and an assistant holding at least a second-class professional. Such a school is entitled to a special grant of \$200 per annum from the Department. There are now sixty-seven of these schools in Manitoba, most of them employing from four to five teachers in public and high school work, and with an average attendance of more than twenty pupils per secondary school. In addition to these there are thirty-seven larger secondary institutions, known as high or collegiate schools, employing two or more teachers devoting their whole time to secondary work, and with larger enrolment than is required for intermediate standing. These schools receive liberal grants, determined by their enrolment, equipment and the scope of their curriculum.

**Night Schools.**—The value of the night school is becoming generally recognized. By its aid the adult foreigner is enabled to gain a working knowledge of the English language, young people who left school at an early age are assisted in making good their deficiencies, and the ambitious and energetic are enabled to gain technical qualification for the occupations which they follow. This work was carried on in some forty centres in the province during the past year.

**Special Subjects.**—The secondary schools of Manitoba offer the usual course leading to university matriculation and a general cultural course for teachers. In addition to these, certain schools provide instruction in commercial subjects and special courses in agriculture and home economics, while the technical schools in the city of Winnipeg give training in the various branches of household art and domestic science, as well as in printing, electrical working, blacksmithing, machine shop practice, cabinet-making, pattern making and mechanical drawing.

**Training of Teachers.**—Any applicant for admission to a normal school must hold a grade XI certificate, which means the satisfactory completion of three years' work in the high school. The full normal school course for a second class professional or permanent license is thirty-eight weeks, which includes four weeks spent at the Agricultural College for special instruction in elementary agriculture, nature study and school gardening. Students may complete the year's training in one course in the provincial normal schools at Winnipeg and Brandon, or they may take an elementary course of fifteen weeks and receive third class professional certificates valid for teaching purposes for three years; after teaching for at least one year they may return to the provincial normal school to complete their training for the permanent license. Classes in the elementary course are held annually at Portage la Prairie, Manitou and Dauphin, as well as at Winnipeg and Brandon. The Winnipeg school aims chiefly to prepare teachers for the urban centres, while the Brandon institution gives special attention to the rural problem.

**Teachers' Special Course.**—Each year the Summer School of Science and Handicrafts enables teachers desirous of strengthening their teaching equipment to take special courses in school gardening, nature study, wood and iron-working, domestic science, household art, playground supervision and oral French for High School teachers.

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**Foreign Travel.**—The “Hands Across the Seas” Movement, organized under the auspices of the Department, enables teachers at comparatively small expense to avail themselves of the advantages of foreign travel. Already 496 teachers have taken advantage of the opportunities afforded and have visited England, Scotland, Ireland, France, Italy, Malta and Egypt. Operations were suspended after the outbreak of the war, but it is hoped to resume them when peace comes.

**Consolidated School Districts.**—The enlarging of the administrative unit has been chiefly by way of consolidation, and there are now seventy-two consolidated districts in Manitoba. The advantages of the system are numerous and have been frequently recapitulated. The disadvantages are due to difficulties arising out of the problem of transportation. Ten years' experience in this province has shown the scheme to be a great improvement upon the one-roomed country school.

**School Gardens.**—More than 525 schools were reported during the year 1916 as having school gardens worthy of the name. A special grant of \$25 per annum is paid to every teacher who does satisfactory work along this line and earns the recommendation of the local inspector.

**Schools for the Deaf and Blind.**—The Manitoba School for the Deaf is situated in the city of Winnipeg, and serves the whole of Western Canada in regard to the education of the deaf, the different provinces having an inter-provincial arrangement whereby each province is able to grant free education to every deaf person of school age in Western Canada. The present population is 168, divided as to sex into ninety-one males and seventy-seven females. Two methods of instruction are used, the manual and oral. Great importance is attached to the use of technical training; so that each deaf person may have a trade to make a profitable living. Blind children for Manitoba are at present cared for in the Ontario School at Brantford. There are now ten Manitoba children there. They are clothed by their parents, and the province pays board and tuition at the rate of \$150 per child for the school term.

**Industrial Training School.**—The Industrial Training School at Portage la Prairie gave instruction during the year 1916 to 140 boys. Of these sixty-six were admitted during the year 1916 and forty-seven released. These lads are those whom their parents have been unable properly to discipline, and an opportunity is given the boys to start work anew under more favourable auspices. Two regularly qualified teachers give instruction in ordinary school subjects, and instructors are provided in blacksmithing, shoemaking, tailoring, baking, horticulture, laundering and farming. The boys are offered every inducement to live a busy, happy life, and a short time spent in the school generally alters their whole viewpoint on life. A system of self-government has been introduced among the boys, and the discipline of the school is largely in their own hands. This system is working out very satisfactorily.

## SASKATCHEWAN.

**Elementary Schools.**—The educational system of the province of Saskatchewan, so far as elementary schools are concerned, is administered under the provisions of the School Act. A Department of Education, presided over by a Minister of Education, has the control, management



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and equipment of all kindergarten schools, public and separate schools, normal schools, model schools, teachers' institutes and of institutions for the education of deaf, deaf mute and blind persons. An Educational Council, consisting of five members appointed by the Lieutenant-Governor, holds sessions at least once a year, and all general regulations respecting the inspection of schools, the examination, training, licensing and grading of teachers' courses of study, teachers' institutes, and text and reference books, before being adopted or amended, are referred to the Council for consideration and report.

Regulations made by the Minister, subject to the approval of the Lieutenant-Governor in Council, provide: (a) for the classification, organization, government, examination and inspection of schools; (b) for the construction, furnishing and care of school buildings and the arrangement of school premises; (c) for the examination, licensing and grading of teachers and for the examination of persons who may desire to enter professions, or who may wish certificates of having completed courses of study in any school; (d) for a teachers' reading course and teachers' institutes and conventions; (e) for giving instruction in manual training, domestic science and physical training.

A Superintendent of Education has the general supervision and direction of high schools and collegiate institutes, model schools, public and separate schools, training schools for teachers, the granting of teachers' certificates, technical schools, departmental examinations, teachers' institutes, teachers' reading courses, school libraries and the inspectors of any such schools.

**Secondary Schools.**—The secondary schools of Saskatchewan are administered under the provisions of the Secondary Education Act, which provides for the establishment of high school districts within the limits of town and city municipalities. The conditions of establishment are that—

1. At the time of the receipt of the petition for such establishment there are at least five teachers regularly employed in the schools situated within the municipality and organized under the provisions of The School Act.

2. Within a period of two years prior to the receipt of such petition no other high school district has been established within a distance of forty miles from the municipalities as measured by the nearest road allowance.

3. It is shown to the satisfaction of the Minister that if the district is established there will be in attendance at the high school at least twenty-five pupils above Grade VIII.

Any high school in the province may be raised to the rank of a collegiate institute on the following conditions:—

1. That the average attendance of pupils above Grade VIII attending the high school for the two terms next preceding the date of application was at least seventy-five, and that during such terms at least four duly qualified teachers were regularly employed.

2. That the board has provided or is prepared to provide within one year accommodation suitable for the pupils and staff of a collegiate institute satisfactory to the Minister.

3. That all regulations of the Department with respect to collegiate institutes have been complied with.

**School Grants.**—Elementary Schools are supported partly by taxes levied by the municipalities concerned, and partly by grants paid by the Government in accordance with the School Grants Act. Funds for high schools are raised by the municipalities concerned and are assisted

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by the government grants payable on the conditions prescribed by the Secondary Education Act. As a further source of revenue to both public and high schools, grants are paid from the supplementary revenue fund in accordance with the provisions of the Supplementary Revenue Act.

**Formation of School Districts.**—The School Act for Saskatchewan provides for the establishment of schools wherever necessary, and any portion of the province with an area not exceeding twenty square miles may be organized into a school district, provided there are residing therein ten children of school age, and four persons, each of whom on its organization is liable to be assessed for school purposes. These schools are under the control of local bodies of trustees chosen on a popular vote. The appointment of teachers is in the hands of the trustees, and the central authority (the Education Department of the Province) issues the certificates of qualification.

**Consolidated School Districts.**—Provision was made in 1913 for the establishment of consolidated districts containing from thirty-six to fifty square miles for the purpose of conveying pupils to a central school. There are sixteen consolidated schools in operation, and wherever due care and judgment have been exercised by the officials the results are satisfactory. In addition to the usual school grant the Government pays an additional grant of one-third of the actual cost of conveyance.

**Small Districts.**—In case a small district is unable to raise sufficient taxes by reason of its limited area to operate a school, or has insufficient school population, the resident children may be conveyed to a neighbouring school at the expense of the district. In this case also the Government pays one-third of the cost of conveying the children.

**School Districts Established by the Minister.**—In case an unorganized area is settled by families with children of school age, the Minister may order the establishment of such area into a school district. This action is necessary only in foreign-speaking settlements where the settlers are not sufficiently acquainted with the English language to conduct organization proceedings.

**Professional Training of Teachers.**—There are two normal schools for the professional training of teachers. They are located at Regina and Saskatoon. In addition, local sessions of the normal school for the training of teachers for elementary schools are held during the winter months at several points in the province and are conducted by the inspectors of schools. Normal school training is considered of supreme importance, and permanent certificates are issued only to those who have received professional training in the training schools of the province or upon satisfactory evidence of equivalent training elsewhere. A reading course for teachers is regarded as part of the professional training, and permanent certificates are not issued until the regulations governing the course are complied with.

## ALBERTA.

**General Organization.**—There is a Department of Education presided over by a Minister of Education who is assisted by a Deputy Minister as permanent administrative head.

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**Elementary Schools.**—The administrative unit of the educational system of Alberta is the school district. A district usually includes an area of approximately four miles square, and may be organized on the initiative of the ratepayers as soon as the area proposed to be formed into a district contains eight resident children of school age and four resident ratepayers. Should the indifference or opposition of the settlers prevent the organization of a school district, the Minister of Education is vested with power to establish such a district without regard to the attitude of the ratepayers, and should the indifference in any community, or any other cause, result in the failure of the board of trustees to administer satisfactorily the affairs of the district, the Minister may appoint an official trustee to perform, under the school laws and regulations, all the functions of a school board. There is also provision whereby the minority, either Protestant or Roman Catholic, in a school district may establish a separate school district, which, however, is subject to the same laws and regulations with respect to teachers' qualifications, courses of studies, inspection, grants, etc., as a public school district.

**Town Schools.**—In the case of a school district in which is situated a city or a town the municipal council is responsible for the assessment and also for the levying thereon and the collection of the amount of taxes requisitioned by the board of trustees of the school district. Similarly, the council of a rural municipality is entrusted with the collection of taxes for each of the school districts within the limits of the municipality, while in the case of a village school district these duties and responsibilities rest with the school board and its officials.

**Financial Arrangements.**—Schoolhouses are usually built from the proceeds of school debentures. Such debentures must first be authorized by the Board of Public Utility Commissioners, and when issued must be registered and countersigned at the Department before they are marketable. In order to secure the best possible price for school debentures, statutory provision is now made whereby the Department of Education may negotiate the sale of debentures in behalf of school districts, and by offering a comparatively large block composed of the debentures issued by several districts, a market may be tapped which would not be open to individual school boards.

**Sources of Revenue.**—The revenue of a school district, which is required to meet debenture payments, teachers' and officials' salaries, supplies, fuel, insurance and other current expenditures, is derived from two sources—government grants and local taxation. The grants are paid on the basis of the number of days during which the school is in operation, and the scale of grants is so arranged that the newly organized district receives a larger grant than the older district, and as a community grows into a populous centre it is gradually thrown more and more upon its own resources so far as school grants are concerned. On the other hand, provision is made for grants for supervisors, and for instructors in special subjects, such as manual training, household science, music, art, agriculture, etc., which compensates the progressive town or city school board in a large measure for the lowering of the grant payable in the larger centre.



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**Secondary Education.**—In the development of the system of education in the province there has been a constant purpose so to arrange the school grades as to provide for an almost imperceptible transition from the elementary to the secondary grades, as well as from the secondary grades to the university. To further this purpose and to guard against any divided interests with respect to elementary and secondary education, the plan that has been adhered to from the beginning is that of having all schools in a school district, whether elementary or secondary, administered under the same local school board. Thus there are technically no high schools in the province, though the schools giving instruction in grades I-VIII inclusive are commonly spoken of as public schools, and those giving instruction in grades IX-XII inclusive as high schools. Upon completing the work of grade XI, that is, the third year of the secondary or high school course, a candidate may enter on the first year of his university course, or, upon completing the work of grade XII, he may enter upon the second year of the university course.

**Training of Teachers.**—Every person employed as a teacher by a school board must hold a certificate of qualification from the Department of Education. The qualifications consist of two parts—academic and professional. The academic qualification required for first class teachers is the grade XII Alberta Diploma, or other standing admitted by the Department to be at least equivalent thereto. The academic qualification for second class teachers is the grade XI Alberta Diploma, or its equivalent. Alberta students with the requisite academic standing, as described above, are admitted to one of the provincial normal schools to train for first or second class certificates according to the academic standing of the candidate. Teachers from the other provinces of Canada, from the United Kingdom or elsewhere, may be granted such standing as the Department finds them entitled to receive. Should the applicant be found to possess the requisite standing, both academic and professional, no further examination is demanded, but should he possess the academic without the professional training required, he is admitted to one of the normal schools to train for the grade of certificate which his academic standing will warrant. Every teacher obtaining professional standing in the province is granted an interim certificate, and is required to prove his ability in the schoolroom for at least one year before receiving a permanent certificate.

## BRITISH COLUMBIA.

**General Organization.**—The members of the Executive Council constitute a Council of Public Instruction, and the Provincial Secretary acts also as Minister of Education. A Superintendent of Education has, subject to the Council of Public Instruction, the supervision and direction of the inspectors and schools.

**Elementary Education.**—The public or common schools of the province are organized in accordance with the provisions of the Public Schools Act, which prescribes in considerable detail the powers of the Council of Public Instruction, the duties of the Superintendent of Education, of the school inspectors and of the teachers. It is provided that all public education shall be free, and that it shall be secular in the

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sense that there shall be no religious education, although the highest morality must be inculcated. Education is compulsory upon all children between the ages of seven and fourteen, provided that there is a school within a reasonable distance of the child's home. For education purposes the province is divided into municipal and rural school districts, and the schools are of three classes, viz., municipality schools, rural schools and assisted schools. The municipality schools are subdivided into four classes, the government grant varying according to the class. Assisted schools are those established in outlying districts by sums granted specially by the provincial government. The local management of the schools is in the hands of trustees elected by the ratepayers, the number varying according to the classification adopted by the Act and as prescribed therein. The schools are supported partly from the provincial treasury and partly from the sums raised by district assessment. In the common schools there are three grades: the junior, the intermediate and the senior.

**Secondary Education.**—The term "common school" is used to distinguish the elementary from the superior or high school. Wherever there are ten pupils qualified and available for high school studies a superior school may be formed in connection with the existing common school. The subjects of the junior high school course may be taught in the superior school. Wherever twenty or more pupils are qualified and available for high-school studies a high school is established. The high school course is divided as follows: the preliminary course, junior grade; the advanced course, junior grade; the intermediate grade; the senior grade and the senior academic grade. There is also a commercial course covering three years. Provision is also made for agricultural and technical courses. Except in the case of the common schools, the passage from one grade to another is determined by an examination conducted by the Education Department. In June each year an entrance examination for admission to the high schools is conducted, and no pupil may enter a high school who does not possess the entrance certificate. There are normal schools for the training of teachers at Vancouver and at Victoria.

## YUKON TERRITORY.

A Superintendent of Schools for the Yukon Territory was appointed in 1902, when a general system of education was inaugurated. The course of study is similar to that adopted in Saskatchewan and Alberta. No teachers are employed unless they hold at least a second class certificate, with normal school training. There are at present two permanent school centres, viz., Dawson and Whitehorse. At Dawson there are two schools: (1) the Dawson Public School of seven departments, including two departments for high school work; (2) St. Mary's Roman Catholic Separate School, the teachers of which are chosen from the Sisters of St. Ann. The high school branch of the Dawson Public School was instituted in 1903. There are two teachers in charge of this branch, one a specialist in classics, modern languages and history, the other a specialist in mathematics and science. In the high grades of the Dawson High School the course of study prescribed

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by the University of Toronto for pass and honour matriculation is followed, and candidates are prepared for university matriculation. There are eight rooms in the Dawson School, three of which are devoted to high school purposes and one to the kindergarten. The Whitehorse Public School has three departments, being now a "continuation" school, teaching work up to the pass for junior matriculation. In certain districts, where the number of children does not warrant the establishment of a regular school under the provisions of the school ordinance, regulations have been made by the Commissioner for the establishment of "assisted schools," but the average attendance must be at least five pupils between the ages of six and sixteen, and the course of studies must be prescribed by the Council of Public Instruction. Teachers of "assisted schools" are also appointed, subject to the approval of the Commissioner and Superintendent of Schools. No territorial or local tax for school purposes is collected within the Yukon Territory. All schools controlled by the Territorial Government are maintained solely by appropriations voted therefor by the Yukon Council out of the consolidated revenue on the recommendation of the Commissioner of the Territory.

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Higher education in Canada is provided for by a number of universities and colleges. Of the universities, Toronto and McGill (Montreal) are the largest, and with Queen's University (Kingston, Ont.) and Dalhousie University (Halifax, N.S.) take national rank. The oldest university in Canada, viz., King's College, Windsor, Nova Scotia, dates from 1789, and claims to be also the oldest university in His Majesty's Overseas Dominions. Several of the universities are affiliated to the older universities of the Mother Country, viz., Oxford, Cambridge and Dublin, whilst some of the smaller Canadian universities, as well as most of the colleges, are affiliated to either Toronto or McGill. In the West, provincial universities have been established for Manitoba at Winnipeg (1877), Saskatchewan at Saskatoon (1907), Alberta at Edmonton (1906) and British Columbia at Vancouver (1907).

## RELIGIOUS AFFILIATIONS OF UNIVERSITIES AND COLLEGES.

Some of the universities and colleges are under the control of religious denominations as follows:

*Anglican or Church of England in Canada*:—King's College, Windsor, N.S.; University of Bishop's College, Lennoxville, Quebec; University of Trinity College, Toronto; Wycliffe College, Toronto; and Emmanuel College, Saskatoon.

*Roman Catholic Church*:—University of St. Francis Xavier's College, Antigonish, N.S.; Laval University, Quebec; Laval University, Montreal; University of Ottawa; St. Michael's College, Toronto.

*Other Denominations*:—Knox College, Toronto (Presbyterian); Mount Allison University, Sackville, N.B.; Victoria University, Toronto; and Wesley College, Winnipeg (Methodist); Acadia University, Wolfville, N.S.; McMaster University, Toronto; and Woodstock College, Woodstock, Ontario (Baptist).



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## UNIVERSITIES AND COLLEGES BY PROVINCES.

The following is a description of the facilities for higher education in Canada, by provinces.

**Prince Edward Island.**—Students who have passed the entrance examinations attend the Prince of Wales College at Charlottetown, in which a three years' course is arranged. Successful candidates of the third year are admitted as third year students in Dalhousie University, and those of the second year enter as second year students in all the Eastern Canadian universities. St. Dunstan's College, Charlottetown, which is a Roman Catholic institution and receives no government support, is affiliated to Laval University, and prepares its students for B.A. and B.L. degrees.

**Nova Scotia.**—The universities that have degree-conferring powers are four in number, mostly with denominational affiliations. The largest had in 1916 an enrolment of 339, and of all four the enrolment was 758. They are independent of the Education Department, but have affiliated to them first the Technical College, and secondly the teachers' examination system, graduation from a recognized university—a four years' course following a matriculation standard approximating the high school grade XII pass—being accepted in lieu of some departmental examinations.

**Technical Education in Nova Scotia.**—The Nova Scotia Technical College, established in 1907 at Halifax, is affiliated to the universities of the Atlantic provinces, which have agreed to teach the first two years of the course, leaving only the last two years, which require the more expensive equipment, for the provincial institution. The three buildings, with their laboratories and apparatus, cost about \$300,000; they provide facilities for scientific research and professional training in civil, mining, mechanical, chemical and electrical engineering, architecture, navigation, etc. The principal of the college is also director of technical education for the province. Coal mining and engineering schools are provided at the greater industrial centres; and local evening technical schools are established in the most populous centres, covering a large variety of subjects. A Correspondence Teaching Department has been organized in connection with the college.

**New Brunswick.**—The public school course of the province leads up to, and is completed in the University of New Brunswick, which is supported by government grants, fees from students and the income from endowments. It is situated at Fredericton. The senate, its governing body, is composed of fourteen members, nine of whom, including the president and chancellor, are appointed by the Lieutenant-Governor in Council; four are elected by the associated alumni of the university, and one is elected by the Educational Institute of New Brunswick. The president and chancellor are permanent members of the senate; the others hold office, some for two and others for three years. The Chief Superintendent of Education is ex-officio president of the senate of the university. The chancellor of the university is the chairman of the faculty, and the administrator of the affairs of the university. He is appointed by the Lieutenant-Governor in Council. The senate of the university appoints the professors and other officers, and fixes their salaries. The

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university provides a four years' course for degrees in Arts and in Science. Students of both sexes are admitted to the Arts course on equal terms. The matriculation or entrance examinations may be written either at the departmental examinations held under the Board of Education in July, or at the opening of the university in September. The student making the highest standing in any county, in the July examination, receives the scholarship of \$60 for that county.

**Quebec.**—There are three universities in the province of Quebec, viz., McGill University, Montreal; Laval University, Quebec; and the University of Bishop's College, Lennoxville. McGill University, founded originally as McGill College and named after its founder, the Hon. James McGill, who died in 1813, was incorporated by Royal Charter in 1821 and received an amended charter in 1852. English, non-sectarian and national rather than provincial in scope, it is affiliated to the universities of Oxford, Cambridge and Dublin, and to it are affiliated seven Canadian colleges, including five colleges in the province and the Vancouver and Victoria Colleges in British Columbia. The Macdonald Agricultural College at Ste. Anne de Bellevue is incorporated with this university and is under the control of its governors. Laval University, French and Roman Catholic, was founded in 1852 and has a branch at Montreal. It is under the direction of a Superior Council composed of the Roman Catholic Archbishops and Bishops of the province. To it are affiliated surveying, polytechnic, veterinary, dental and forestry schools; also the School of Higher Commercial Studies at Montreal and the Agricultural Institute of Oka. The University of Bishop's College is under the direction of the Church of England in Canada.

**Technical and Agricultural Instruction in Quebec.**—The institutions for technical instruction include the Science Department of the McGill University, the Polytechnic School affiliated to Laval University and the Commercial and Technical High School at Montreal for day and evening classes. In 1907 a School of Higher Commercial Studies (*École des Hautes Études Commerciales*) was established at Montreal by Act of the Legislature. It provides courses in the principles of banking, administration and political economy, and is at present the only institution in Canada possessing a special Chair of Statistics. The majority of the students are French-Canadian Roman Catholics, and the Quebec Government has recently placed the institution under the charge of Laval University. There are four institutions in the province for the teaching of agriculture, including a Dairy School at St. Hyacinthe, the Agricultural Institute of Oka, the Agricultural School at Ste. Anne de la Pocatière and the Macdonald College at Ste. Anne de Bellevue. The latter, founded, erected, equipped and endowed by the late Sir William Macdonald of Montreal at a cost of nearly \$7,000,000, is organized in three Departments: (1) the school of agriculture; (2) the school for teachers and (3) the school of household science. The school of agriculture combines theoretical and practical instruction with research work. The ordinary courses extend over two years for a Diploma in Agriculture and over four years for the degree of Bachelor of Science in Agriculture (B.S.A.).

**Ontario.**—Provision for higher education is made by universities

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and colleges with varying religious affiliations in different parts of the province; but the University of Toronto is the only university supported directly by the province. In 1887 it became a federation, comprising the university itself as undenominational and various other colleges and universities, including the University College, St. Michael's College (Roman Catholic), University of Trinity College and Wycliffe College (Church of England), Victoria University (Methodist), and Knox College (Presbyterian). The following colleges are affiliated to the University, their students obtaining their degrees therefrom: Royal College of Dental Surgeons, Toronto; College of Pharmacy, Toronto; Ontario Agricultural College, Guelph; Veterinary College, Toronto; Toronto Conservatory of Music, Toronto College of Music, Hamilton Conservatory of Music. The governing bodies of the University consist of (1) the board of governors administering the property; (2) the senate controlling the academic side and (3) the caput dealing with discipline. Convocation consists of all the graduates of the university and of federated universities. The universities in other parts of the province, which are not federated with or affiliated to the Toronto University, include Queen's University at Kingston, and the McMaster University at Toronto (Baptist). There are also a number of institutions for special training, including the Royal Military College at Kingston (an institution of the Dominion Government); the Western University, London (Medicine and Arts); the College of Art, Toronto; Conservatories of Music, Ottawa and London.

**Manitoba.**—The University, situated at Winnipeg, is the oldest university in the West. It was established in 1877, and affiliated to it are seven colleges, three of which were already in existence when the University was founded. These are St. Boniface, the chief Roman Catholic college in the West, dating from the beginning of the nineteenth century; St. John's, the Church of England college, re-organized in 1866; Manitoba College, organized by the Presbyterian Church in 1871; the Medical College, affiliated in 1882; Wesley College, supported by the Methodist Church, affiliated in 1888; the College of Pharmacy, affiliated in 1902 and since merged in the University Faculty as a department of pharmacy; the Manitoba Agricultural College, affiliated from 1907 to 1912 and again from 1916 onwards, and the Manitoba Law School, established under the joint auspices of the University and the Manitoba Law School in 1914. The University has an endowment of 150,000 acres of land. The property is being sold in parcels from time to time, and the proceeds are invested in trust. The income, which is largely supplemented by grants from the Provincial Government, enables the University to provide higher education at moderate cost. Instruction is given in arts, science, divinity (in affiliated colleges), medicine, law, the various branches of engineering, and also in pharmacy. Extension work is carried on throughout the province, and lecturers from the University give courses in their various subjects. This work has proved very popular in the past, and steps are being taken to enlarge its scope. There were in 1916-17 some 600 students in the University taking work in arts, science, engineering, medicine, law, pharmacy and agriculture. The medical students have ample opportunities for clinical work in the



## HIGHER EDUCATION IN CANADA.

hospitals of Winnipeg. The course in medicine extends over five years. Enlistments of undergraduates in 1915-16 totalled 250 or above, or over 30 p.c. of the total male enrolment of that year.

**Agricultural Education in Manitoba.**—The courses given in agriculture in several of the high schools have already been mentioned (see page 136), but the institution which has the work of agricultural education chiefly in hand is the Manitoba Agricultural College. This institution, which was opened at Winnipeg in 1906, has been moved to new buildings on the banks of the Red river. The work of the college falls into three divisions—agriculture proper, home economics and extension work. There are two courses in agriculture—the diploma course, extending over three winters of five months each, and the degree course, extending over five years. The diploma course is designed to meet the requirements of the lad who will in due course work on a farm. To enter, he must be over sixteen years of age, have spent at least two summers on a farm doing practical work, and have a sufficiently good English education to derive benefit from the lectures. Students who have obtained a diploma at the end of the three years' course may proceed to study for the B.S.A. degree. This course is meant for those who will take up the higher branches of agriculture, or who desire to investigate certain agricultural problems, or become teachers, lecturers, superintendents or inspectors.

In addition there are house-keeping courses for young women; lecturers are sent out from the college to address agricultural societies and farmers' institutes, to act as judges at shows and to organize farm and seed competitions. Special short winter courses for farmers are also given at the college.

**Saskatchewan.**—A Saskatchewan University has been established under the provisions of the University Act, 1907 (Saskatchewan R. S. 1909, c. 98). The University is situated at Saskatoon upon a site of 1,333 acres, and has been furnished with buildings and equipment costing over a million dollars. Emmanuel College was formerly in Prince Albert, and was chartered under the name of the University of Saskatchewan. It was transferred to Saskatoon and devoted itself to theological studies, but still retained its charter rights. The charter was amended in 1915, and the name changed to the University of Emmanuel College. It exercises the right to confer degrees in divinity. Its right in that respect is the same as that of Wycliffe or Knox, although it has charter rights which would enable it to do work in other faculties than divinity.

Another theological college, viz., the Presbyterian College at Saskatoon, does work similar to Emmanuel College. The College of Agriculture at Saskatoon is part of the University, and is as closely related to the other parts of the University as are Law, Engineering and Arts.

**Alberta.**—The University of Alberta was established at Edmonton under the provisions of the University Act (1 Geo. V, 1910, c. 7). Various colleges and professional societies in the province are affiliated

## EDUCATION.

to the University. It is the only degree-conferring educational institution in the province, with the exception of the theological colleges which confer honorary degrees in theology. The Institute of Technology and Art is established at Calgary as a provincial institution. Its object is to promote technical education generally and to provide for leadership in this field. During the continuance of the war, the Institute is devoting itself to the training in the day-time of returned soldiers. Civilian classes are carried on by evening classes and correspondence.

**British Columbia.**—A provincial University, located in the vicinity of Vancouver, completes the work begun in the public and high schools. It undertakes to furnish instruction in the various branches of a liberal education, and in the technical branches that have a bearing upon the life and industries of the province. The Provincial Legislature has set apart 2 000,000 acres of land for endowment; but, as up to the present no revenue has been received from this source, the institution is being maintained by sums from the provincial treasury.

## EDUCATION STATISTICS OF CANADA.

There being at present no effective co-ordination of education statistics it is difficult to construct comparative tables for Canada. In the first place, the year to which the statistics relate differs according to province. Thus the school year ended June 30 is adopted for statistical purposes by Prince Edward Island, New Brunswick, Quebec, Manitoba and British Columbia; the education year for Nova Scotia ends on July 31; and the calendar year ended December 31 is selected by Ontario, Saskatchewan and Alberta.

**Statistics of Public Schools.**—In the tables numbered 1 to 8 an attempt is, however, made to bring together by provinces (1) the number of elementary schools, teachers and pupils, with the average attendance of the pupils; (2) the number of teachers and pupils in normal and model schools for the training of teachers; (3) statistics of secondary schools so far as they are separately given; (4) the amount of public receipts and expenditure for education under the school law of each province and (5) the average annual salaries of teachers by provinces.

In Table 1 the number of schools, teachers and pupils in the three Atlantic provinces (Prince Edward Island, Nova Scotia and New Brunswick) includes both elementary and secondary schools or grades; in Nova Scotia the term "school" has a technical signification, being applied to a class with one teacher, irrespective of the number of classes in a school building. In Quebec and Ontario the statistics in Table 1 apply only to elementary schools; but again in the Prairie Provinces and in British Columbia no line is drawn between the elementary and secondary grades. In Manitoba the sex of the pupils is not separately distinguished. Statistics of secondary education are only separately available for Quebec and Ontario. They are given in Tables 3 and 4. The academies of Quebec are generally similar to the collegiate institutes and high schools in Ontario, and the Quebec model schools are intermediate between the elementary school and the academy.

## EDUCATION STATISTICS OF CANADA.

**Growth of Expenditure on Public Education.**—Probably the most remarkable feature of these statistics is the extraordinary growth during the present century of the expenditure upon public education. In 1901, the first year of the century, the total expenditure for the purposes of public education in Canada was \$11,589,410; in 1915, the latest year for which complete figures for all the provinces are available, it was \$55,807,318, an increase of \$44,217,908, or 382 p.c.

**Statistics of Higher Education.**—In Tables 9-14 are presented statistical particulars relating to the universities and colleges of Canada which are summarized from information furnished by each of the institutions mentioned. Tables 9 and 12 give the dates of foundation, the affiliation, the faculties and degrees; Tables 10 and 13, the number of teaching staff and students; and Tables 11 and 14, statistics of property, income and expenditure. For seventeen of the universities in Table 11 the total value of the endowments is \$20,949,946, and for eighteen of the universities the total value of property in land and buildings amounts to \$27,445,452. For the twenty universities the total income amounts to \$3,424,681, of which \$804,256 are derived from investments, \$1,421,379 from government grants, \$756,476 from fees and \$142,570 from other sources. The total expenditure of the same universities amounts to \$3,401,884.

## 1.—Number of Schools, Teachers and Pupils in Canada by Provinces, 1901-1916.

## PRINCE EDWARD ISLAND (Year ended June 30).

Year.	Schools	Teachers.			Pupils enrolled.			Average Attendance of pupils.	
		Male.	Female	Total.	Boys.	Girls.	Total.	No.	Per cent.
1901.....	474	299	290	589	11,319	9,460	20,779	12,330	50.34
1902.....	474	293	295	588	11,271	9,532	20,803	12,884	61.93
1903.....	480	274	298	572	10,845	9,111	19,956	12,112	60.69
1904.....	480	268	294	562	10,259	8,772	19,031	11,722	61.59
1905.....	475	246	324	570	10,427	8,845	19,272	11,627	60.33
1906.....	478	246	327	573	10,196	8,790	18,986	11,903	62.69
1907.....	479	227	345	572	10,213	8,823	19,036	11,543	60.63
1908.....	476	205	375	580	9,449	8,563	18,012	11,647	64.66
1909.....	479	200	395	595	9,578	8,495	18,073	11,543	63.86
1910.....	478	188	403	591	9,573	8,359	17,932	11,632	64.86
1911.....	478	178	413	591	9,152	8,245	17,397	10,511	60.40
1912.....	474	162	428	590	8,995	8,083	17,078	10,916	63.91
1913.....	475	161	422	583	9,186	8,369	17,555	11,003	62.67
1914.....	474	162	426	588	9,514	8,555	18,069	11,170	61.81
1915.....	477	152	434	586	9,714	8,688	18,402	11,694	63.54
1916.....	476	138	457	595	9,565	8,797	18,362	11,347	61.79



## E D U C A T I O N .

1.—Number of Schools, Teachers and Pupils in Canada by Provinces,  
1901-1916—con.

## NOVA SCOTIA (Year ended July 31).

Year.	Schools	Teachers.			Pupils enrolled.			Average Attendance of pupils.	
		Male.	Female	Total.	Boys.	Girls.	Total.	No.	Per cent.
1901.....	2,387	540	1,952	2,492	49,768	48,642	98,410	53,643	54.5
1902.....	2,394	485	2,007	2,492	50,247	48,812	99,059	55,438	55.9
1903.....	2,395	441	2,053	2,494	49,789	48,979	98,768	55,213	55.9
1904.....	2,331	388	2,053	2,441	48,536	48,350	96,886	54,000	55.8
1905.....	2,429	386	2,180	2,566	50,465	49,787	100,252	56,342	56.3
1906.....	2,446	366	2,212	2,578	50,198	50,134	100,332	59,165	58.9
1907.....	2,465	354	2,272	2,626	49,849	50,158	100,007	57,173	57.1
1908.....	2,516	355	2,309	2,664	49,906	50,199	100,105	58,343	58.2
1909.....	2,577	352	2,342	2,694	50,758	50,922	101,680	61,787	60.7
1910.....	2,579	339	2,384	2,723	50,918	51,117	102,035	65,630	64.3
1911.....	2,639	331	2,468	2,799	50,985	51,925	102,910	61,250	59.5
1912.....	2,662	293	2,511	2,804	51,498	52,486	103,984	63,640	61.2
1913.....	2,692	278	2,583	2,861	52,105	53,164	105,269	65,686	62.4
1914.....	2,724	272	2,620	2,892	52,656	53,695	106,351	66,599	62.6
1915.....	2,795	256	2,689	2,945	53,649	54,119	107,768	70,361	65.3
1916.....	2,837	246	2,773	3,019	53,944	55,245	109,189	69,227	63.4

## NEW BRUNSWICK (Year ended June 30).

(For second term ended June 30.)

1901.....	1,741	353	1,488	1,841	30,870	29,550	60,420	37,717	58.34
1902.....	1,736	348	1,477	1,825	30,767	29,710	60,477	38,736	59.62
1903.....	1,726	341	1,474	1,815	30,172	29,141	59,313	37,552	58.79
1904.....	1,722	313	1,503	1,816	29,892	28,867	58,759	36,920	58.50
1905.....	1,750	304	1,562	1,866	30,854	29,546	60,400	35,675	59.60
1906.....	1,762	302	1,577	1,879	30,913	29,768	60,681	37,540	61.86
1907.....	1,766	253	1,621	1,874	30,289	29,262	59,551	35,367	59.38
1908.....	1,767	259	1,602	1,861	30,600	29,795	60,395	36,972	61.22
1909.....	1,854	251	1,691	1,942	31,489	30,448	61,937	38,731	62.53
1910.....	1,860	233	1,741	1,974	31,933	31,061	62,994	39,822	63.21
1911.....	1,885	221	1,754	1,975	31,871	31,202	63,073	39,215	62.17
1912.....	1,906	201	1,811	2,012	32,062	31,502	63,564	40,612	63.89
1913.....	1,897	193	1,809	2,002	31,924	31,656	63,580	41,276	64.91
1914.....	1,922	201	1,831	2,032	32,244	32,066	64,310	40,882	63.57
1915.....	1,964	184	1,922	2,106	33,437	33,068	66,505	44,683	67.18
1916.....	1,996	196	1,965	2,161	33,089	33,549	66,638	43,914	65.98

## QUEBEC (Year ended June 30).

1901....	5,241	185	5,911	6,096	99,440	101,684	201,124	138,787	69.01
1902.....	5,298	127	5,935	6,062	100,332	102,634	202,966	140,005	68.98
1903.....	5,379	196	6,105	6,301	101,532	103,525	205,057	143,044	69.76
1904.....	5,461	114	6,248	6,362	100,456	105,681	206,137	145,063	70.37
1905.....	5,517	128	6,334	6,462	101,777	107,936	209,713	151,156	72.08
1906.....	5,573	150	6,423	6,573	102,358	108,044	210,402	154,022	73.20
1907.....	5,592	160	6,479	6,639	101,981	107,899	209,880	152,764	72.79
1908.....	5,594	183	6,485	6,668	102,556	107,987	210,543	153,162	72.75
1909.....	5,648	169	6,601	6,770	106,011	110,781	216,792	160,096	73.85
1910.....	5,720	172	6,729	6,901	106,862	112,052	218,914	162,928	74.42
1911.....	5,905	203	6,931	7,134	111,458	114,980	226,438	167,168	73.82
1912.....	5,789	207	7,001	7,208	111,887	117,347	229,234	171,816	74.95
1913.....	5,827	213	7,182	7,395	129,052	105,208	234,260	176,438	75.32
1914.....	5,947	232	7,523	7,755	119,244	125,363	244,607	185,102	75.67
1915.....	5,998	267	7,715	7,982	122,730	128,762	251,492	195,473	77.73

## EDUCATION STATISTICS OF CANADA.

1.—Number of Schools, Teachers and Pupils in Canada by Provinces,  
1901-1916—con.

## ONTARIO (Year ended December 31).

Year.	Schools	Teachers.			Pupils Enrolled.			Average Attendance of pupils.	
		Male.	Female	Total.	Boys.	Girls.	Total.	No.	Per cent.
1901.....	6,035	2,437	6,784	9,221	236,482	222,124	458,606	262,010	57.00
1902.....	6,062	2,294	7,073	9,367	232,880	221,208	454,088	261,480	57.58
1903.....	6,146	2,160	7,296	9,456	230,630	219,648	450,278	260,268	57.80
1904.....	6,177	2,075	7,479	9,554	227,596	217,025	444,621	257,085	57.82
1905.....	6,221	1,950	7,699	9,649	229,026	217,468	446,494	264,107	59.15
1906.....	6,240	1,863	7,899	9,762	230,236	218,756	448,992	267,252	59.52
1907.....	6,268	1,783	8,110	9,893	229,794	218,424	448,218	266,503	59.45
1908.....	6,334	1,842	8,243	10,085	233,301	219,920	453,221	272,190	60.05
1909.....	6,380	1,747	8,527	10,274	234,876	221,426	456,302	274,561	60.17
1910.....	6,408	1,696	8,822	10,518	235,131	224,014	459,145	279,358	60.84
1911.....	6,416	1,499	9,043	10,542	236,147	223,801	459,948	281,984	61.30
1912.....	6,452	1,511	9,246	10,757	239,187	227,835	467,022	291,210	62.35
1913.....	6,484	1,600	9,575	11,175	245,436	234,807	480,243	305,640	63.64
1914.....	6,550	1,628	9,918	11,546	252,202	241,636	493,838	319,337	64.66
1915.....	6,600	1,685	10,165	11,850	258,000	247,074	505,074	336,860	66.69
1916.....	-	1,387	10,693	12,080	258,817	249,705	508,522	328,809	64.56

## MANITOBA (Year ended June 30).

NOTE.—The Manitoba school year from 1901 to 1911 ended December 31st. Owing to a change in the date of the school year no report was issued for 1912.

1901.....	1,416	618	1,051	1,669	-	-	51,888	27,550	53.1
1902.....	1,488	629	1,220	1,849	-	-	54,056	28,306	52.4
1903.....	1,584	628	1,466	2,094	-	-	57,409	36,479	63.5
1904.....	1,669	682	1,536	2,218	-	-	58,574	31,326	53.4
1905.....	1,761	597	1,675	2,272	-	-	63,287	33,794	53.4
1906.....	1,847	596	1,769	2,365	-	-	64,123	34,947	54.5
1907.....	1,943	595	1,885	2,480	-	-	67,144	37,279	55.5
1908.....	2,014	598	1,928	2,526	-	-	71,031	40,691	57.3
1909.....	2,105	637	2,025	2,662	-	-	73,044	41,405	56.7
1910.....	2,227	621	2,153	2,774	-	-	76,247	43,885	57.6
1911.....	2,341	651	2,217	2,868	-	-	80,848	45,303	56.0
1913.....	2,430	500	2,464	2,964	-	-	83,679	48,163	57.5
1914.....	2,688	474	2,390	2,864	-	-	93,954	58,778	62.6
1915.....	2,727	598	2,378	2,976	-	-	100,963	68,250	67.6
1916.....	2,888	491	2,500	2,991	-	-	103,796	66,561	64.1

## SASKATCHEWAN (Year ended December 31).

1906.....	873	563	732	1,296	16,376	14,899	31,275	15,770	50.31
1907.....	1,101	-	-	1,470	19,454	18,168	37,622	19,841	52.48
1908.....	1,410	-	-	2,157	24,773	22,313	47,086	26,081	55.00
1909.....	1,692	959	1,335	2,294	28,426	25,543	53,969	28,202	52.25
1910.....	1,912	1,074	1,598	2,672	33,356	30,608	63,964	33,731	52.80
1911.....	2,110	1,316	2,175	3,491	36,926	33,641	70,567	37,701	53.00
1912.....	2,444	1,245	2,122	3,367	41,495	38,387	79,882	48,282	60.31
1913.....	2,747	1,413	2,739	4,152	51,651	47,458	99,109	54,684	55.10
1914.....	3,055	1,552	2,949	4,501	58,036	53,023	111,059	63,328	57.02
1915.....	3,367	1,609	3,340	4,949	62,165	57,114	119,279	70,024	58.70

## E D U C A T I O N.

1.—Number of Schools, Teachers and Pupils in Canada by Provinces,  
1901-1916—concluded.

ALBERTA (Year ended December 31).

Year.	Schools	Teachers.			Pupils Enrolled.			Average Attendance of pupils.	
		Male.	Female	Total.	Boys.	Girls.	Total.	No.	Per cent.
1906.....	570	280	644	924	14,701	14,083	28,784	14,782	51.00
1907.....	694	318	892	1,210	17,707	16,631	34,338	17,310	54.00
1908.....	851	435	1,033	1,468	19,516	20,137	39,653	18,923	48.00
1909.....	970	570	1,245	1,815	23,701	22,347	46,048	22,225	48.24
1910.....	1,195	716	1,501	2,217	28,406	26,901	55,307	29,611	53.54
1911.....	1,392	867	1,784	2,651	31,753	29,907	61,660	32,556	52.08
1912.....	1,600	956	2,098	3,054	36,717	34,327	71,044	39,226	55.21
1913.....	1,705	980	2,314	3,294	41,449	38,460	79,909	45,888	57.41
1914.....	2,027	1,375	2,603	3,978	46,769	43,141	89,910	54,582	60.71
1915.....	2,138	1,418	2,800	4,218	50,140	47,146	97,286	61,112	62.81
1916.....	2,170	1,355	3,252	4,607	50,375	48,826	99,201	60,271	60.75

BRITISH COLUMBIA (Year ended June 30).

1901.....	313	185	343	528	11,854	11,177	23,031	14,962	64.96
1902.....	330	194	355	549	11,941	11,176	23,117	15,244	65.94
1903.....	338	189	391	580	12,243	11,400	23,643	16,000	67.67
1904.....	339	182	413	595	12,949	11,857	24,806	16,386	66.06
1905.....	348	177	452	629	13,671	12,593	26,264	18,037	68.67
1906.....	361	176	477	653	14,051	13,235	27,286	18,886	69.21
1907.....	376	163	530	693	14,815	13,869	28,684	19,483	69.18
1908.....	399	181	576	757	16,498	15,255	31,753	22,349	70.38
1909.....	429	213	628	841	17,770	16,519	34,289	24,221	70.64
1910.....	476	231	727	958	19,432	18,197	37,629	26,874	71.42
1911.....	510	249	843	1,092	22,222	20,735	42,957	30,984	72.13
1912.....	550	256	1,004	1,260	24,761	23,056	47,817	35,739	74.74
1913.....	614	307	1,179	1,486	28,312	26,392	54,704	40,963	74.88
1914.....	682	394	1,339	1,733	30,476	28,474	58,950	46,555	78.97
1915.....	730	412	1,403	1,815	31,215	29,137	60,352	49,162	81.46
1916.....	770	416	1,486	1,902	30,614	29,186	59,800	47,054	78.69

SUMMARY FOR CANADA (1901 to 1915).

1901.....	17,611	4,617	17,819	22,436	<i>439,733</i>	<i>422,637</i>	914,258	546,999	59.83
1902.....	17,782	4,370	18,362	22,732	<i>437,438</i>	<i>423,072</i>	914,566	552,093	60.37
1903.....	18,048	4,229	19,083	23,312	<i>435,211</i>	<i>421,804</i>	914,424	560,668	61.31
1904.....	18,179	4,022	19,526	23,548	<i>429,638</i>	<i>420,552</i>	908,814	552,502	60.79
1905.....	18,501	3,788	20,226	24,014	<i>436,220</i>	<i>426,175</i>	925,682	570,738	61.66
1906.....	20,150	4,542	22,061	26,603	<i>469,029</i>	<i>457,709</i>	990,861	614,267	61.99
1907.....	20,684	<i>3,853</i>	<i>22,134</i>	27,457	<i>474,102</i>	<i>463,234</i>	1,004,480	617,263	61.45
1908.....	21,361	<i>4,058</i>	<i>22,551</i>	28,766	<i>486,599</i>	<i>474,169</i>	1,031,799	640,358	62.06
1909.....	22,134	5,098	24,789	29,887	<i>502,609</i>	<i>486,481</i>	1,062,134	662,771	62.40
1910.....	22,855	5,270	26,058	31,328	<i>515,611</i>	<i>502,309</i>	1,094,167	693,471	63.38
1911.....	23,676	5,515	27,628	33,143	<i>530,514</i>	<i>514,436</i>	1,125,798	706,672	62.77
1912.....	21,877	4,831	26,221	31,052	<i>546,602</i>	<i>533,023</i>	1,079,625	701,441	64.97
1913.....	24,871	5,645	30,267	35,912	<i>539,115</i>	<i>545,514</i>	1,218,308	789,741	64.82
1914.....	26,069	6,290	31,599	37,889	<i>601,141</i>	<i>536,953</i>	1,281,048	852,333	66.53
1915.....	26,796	6,581	32,846	39,427	<i>621,050</i>	<i>605,108</i>	1,327,121	907,619	68.39

NOTE.—From 1901 to 1905, inclusive, the Summary for Canada comprised the seven provinces of Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and British Columbia. The two provinces of Saskatchewan and Alberta were formed in 1905, and from 1906 all the nine provinces are included, with the exception of Manitoba for 1912, when no Education Report was issued by that province. In 1907 and 1908 the sex of the teachers in Saskatchewan was not given, and in Manitoba the sex of the pupils was not given for any of the years. In the Summary, therefore, these defects are indicated by printing the totals in italics.



## EDUCATION STATISTICS OF CANADA.

## 2.—Normal and Model Schools in Nova Scotia, New Brunswick, Quebec, Ontario and Manitoba, 1901-1916.

## NOVA SCOTIA.

*Number of Pupils in the Provincial Normal College.*

Year.	No. of Pupils.	Year.	No. of Pupils.	Year.	No. of Pupils.	Year.	No. of Pupils.
1901.....	240	1905	148	1909	215	1913	302
1902.....	182	1906	154	1910	260	1914	318
1903.....	145	1907	142	1911	268	1915	355
1904.....	191	1908	161	1912	293	1916	388

## NEW BRUNSWICK.

*Number of Teachers and Pupils in the Normal School and Model Department.*

Year.	Teachers.	Pupils in Normal School.			Pupils in Model Department.		
		Male.	Female.	Total.	Male.	Female.	Total.
1901.....	11	41	155	196	81	111	192
1902.....	14	68	201	269	72	118	190
1903.....	16	35	189	224	73	104	177
1904.....	19	35	253	288	74	102	176
1905.....	—	54	231	285	86	104	190
1906.....	16	44	263	307	85	95	180
1907.....	18	45	315	360	74	91	165
1908.....	18	35	299	334	90	92	182
1909.....	18	53	290	343	93	94	187
1910.....	15	63	295	358	91	100	191
1911.....	16	46	324	370	88	99	187
1912.....	16	46	330	376	91	100	191
1913.....	18	53	305	358	92	98	190
1914.....	16	45	312	357	88	99	187
1915.....	16	52	299	351	101	88	189
1916.....	19	45	327	372	85	93	178

## QUEBEC.

*Number of Teachers and Pupils in Normal Schools, and Schools annexed to Normal Schools.*

## NORMAL SCHOOLS, 1901-1915.

Year.	Schools.	Teachers.			Pupils enrolled.			Average attendance.	Per cent.
		Male.	Female.	Total.	Boys.	Girls.	Total.		
1901.....	5	31	27	58	97	256	353	345	97.73
1902.....	5	31	30	61	130	290	420	415	98.81
1903.....	5	31	30	61	138	322	460	455	98.91
1904.....	5	30	31	61	151	241	392	388	98.98
1905.....	5	32	30	62	142	274	416	410	98.56
1906.....	5	35	27	62	143	280	423	420	99.29
1907.....	6	34	38	72	159	308	467	462	98.93
1908.....	7	39	27	66	165	361	526	524	99.62
1909.....	10	58	59	117	182	533	715	710	99.30
1910.....	11	53	75	128	177	610	787	780	99.11
1911.....	11	50	79	129	174	666	840	835	99.40
1912.....	11	43	77	120	160	676	836	—	—
1913.....	13	50	86	136	175	913	1,088	—	—
1914.....	14	48	98	146	189	1,081	1,270	—	—
1915.....	14	54	131	185	191	1,121	1,312	—	—

## EDUCATION.

## 2.—Normal and Model Schools in Nova Scotia, New Brunswick, Quebec, Ontario and Manitoba, 1901-1916—concluded.

## ONTARIO.

*Number of Teachers, Students and Pupils in Provincial Normal and Normal Model Schools.*

Year.	Provincial Normal.		Year.	Normal Model.	
	Teachers.	Students.		Teachers. <sup>1</sup>	Pupils.
	No.	No.		No.	No.
1901.....	14	613	1901.....	28	921
1902.....	16	619	1902.....	31	958
1903.....	25	586	1903.....	36	1,067
1904.....	25	304	1904.....	36	982
1905.....	27	306	1905.....	36	1,023
1906.....	27	345	1906.....	36	990
1907-8.....	35	428	1907.....	38	979
1908-9.....	62	1,149	1908.....	37	925
1909-10.....	68	1,235	1909.....	37	903
1910-11.....	68	1,266	1910.....	38	952
1911-12.....	69	1,064	1911.....	38	916
1912-13.....	69	986	1912.....	38	914
1913-14.....	70	1,201	1913.....	38	959
1914-15.....	71	1,160	1914.....	38	978
1915-16.....	77	1,609	1915.....	40	962
1916-17.....	78	1,293	1916.....	43	971

<sup>1</sup>Includes Kindergarten.

## MANITOBA.

*Number of Teachers and Students in Normal Schools.*

Year.	Teachers.		Students at		Year.	Teachers.		Students at	
	Pro- vin- cial Normal.	Local Normal.	2nd class ses- sions.	3rd class ses- sions.		Pro- vin- cial Normal.	Local Normal.	2nd class ses- sions.	3rd class ses- sions.
1901.....	7	13	90	161	1909...	5	10	136	312
1902.....	7	14	86	234	1910...	5	10	122	331
1903.....	7	14	82	237	1911...	6	11	126	502
1904.....	7	14	129	261	1912...	School year changed			
1905.....	8	18	171	320	1913...	6	11	139	390
1906.....	6	14	148	328	1914...	6	10	180	401
1907.....	5	11	128	272	1915...	6	14	206	466
1908.....	5	10	131	279	1916...	14	12	331	409

NOTE.—The above figures are also included with the public schools in Table 1.

## EDUCATION STATISTICS OF CANADA.

## 3.—Number of Teachers and Pupils in Model Schools, Academies and Roman Catholic Classical Colleges in Quebec, 1901-1915.

## MODEL SCHOOLS.

Year.	Schools	Teachers.			Pupils enrolled.			Average attend- ance.	Per cent.
		Male.	Female	Total.	Boys.	Girls.	Total.		
1901.....	557	655	1,800	2,455	39,260	41,979	81,239	65,872	81.09
1902.....	568	612	1,923	2,535	39,816	42,286	82,102	66,109	80.52
1903.....	555	618	1,805	2,423	40,587	41,205	81,792	66,327	81.10
1904.....	572	673	1,824	2,497	43,055	41,712	84,767	68,349	80.63
1905.....	587	690	1,876	2,566	44,120	41,654	85,774	69,640	81.19
1906.....	598	700	1,907	2,616	46,227	42,611	88,838	72,732	81.87
1907.....	627	753	2,045	2,798	47,307	45,609	92,916	75,433	81.18
1908.....	640	767	2,147	2,914	48,831	48,201	97,032	79,226	81.65
1909.....	660	750	2,216	2,966	50,064	48,574	98,638	81,038	82.16
1910.....	661	801	2,187	2,988	51,165	49,327	100,492	82,514	82.11
1911.....	671	851	2,335	3,186	53,175	53,211	106,386	86,758	81.55
1912.....	683	913	2,314	3,227	55,108	52,667	107,775	88,301	81.93
1913.....	698	912	2,345	3,257	56,109	53,544	109,653	89,777	81.88
1914.....	718	904	2,517	3,421	59,019	55,719	114,738	94,255	82.15
1915.....	721	809	2,547	3,356	56,146	53,686	109,832	91,910	83.68

## ACADEMIES.

1901.....	168	428	1,213	1,641	15,101	17,417	32,518	27,596	84.87
1902.....	166	497	1,225	1,722	16,156	20,064	36,220	30,810	85.12
1903.....	178	513	1,316	1,829	16,868	22,466	39,334	33,752	85.81
1904.....	179	517	1,361	1,878	16,503	22,259	38,762	32,907	84.90
1905.....	184	523	1,397	1,920	17,085	23,196	40,281	34,624	85.96
1906.....	193	566	1,449	2,015	18,382	24,186	42,568	36,357	85.41
1907.....	198	607	1,526	2,133	20,905	23,913	44,818	38,313	85.49
1908.....	201	632	1,560	2,192	20,084	25,285	45,369	38,631	85.15
1909.....	217	686	1,709	2,395	23,071	28,511	51,582	44,595	86.45
1910.....	236	735	1,756	2,491	24,404	30,737	55,141	47,953	86.31
1911.....	223	734	1,838	2,572	24,483	31,816	56,299	47,752	84.82
1912.....	248	758	2,017	2,775	26,268	36,759	63,027	54,403	86.31
1913.....	273	827	2,122	2,949	28,078	39,793	67,871	58,232	85.79
1914.....	296	916	2,227	3,143	32,674	43,876	76,550	65,190	85.16
1915.....	321	1,104	2,350	3,454	38,784	47,979	86,763	73,514	84.47

## ROMAN CATHOLIC CLASSICAL COLLEGES.

Year.	Number of			Average Attend- ance.	Year.	Number of			Average attend- ance.
	Col- leges.	Profes- sors.	Pupils enrolled.			Col- leges.	Profes- sors.	Pupils enrolled.	
1901....	19	549	5,915	5,468	1909...	18	609	6,397	5,872
1902....	19	562	6,096	5,698	1910...	19	642	6,599	6,053
1903....	19	559	6,174	5,694	1911...	19	642	7,140	6,521
1904....	19	590	6,265	5,758	1912...	21	662	7,818	7,280
1905....	19	621	6,269	5,772	1913...	21	687	8,189	7,677
1906....	19	621	6,318	5,895	1914...	21	726	8,444	7,841
1907....	19	624	6,268	5,796	1915...	21	754	8,251	7,664
1908....	19	624	6,274	5,709					



## E D U C A T I O N .

## 4.—Number of Teachers and Pupils in Collegiate Institutes and High Schools in Ontario, 1901-1916.

Year.	Schools. No.	Teachers No.	Pupils enrolled.			Average attend- ance.	Per cent.
			Boys. No.	Girls. No.	Total. No.		
1901.....	131	579	10,869	11,654	22,523	13,224	58.71
1902.....	134	593	11,629	12,843	24,472	14,430	58.97
1903.....	135	619	11,988	13,734	25,722	15,317	59.55
1904.....	138	661	12,718	14,991	27,709	16,730	60.38
1905.....	140	689	13,035	15,626	28,661	17,567	61.29
1906.....	142	719	13,336	16,056	29,392	18,078	61.50
1907.....	143	750	13,799	16,532	30,331	18,485	60.94
1908.....	145	795	14,731	17,181	31,912	19,862	62.23
1909.....	145	820	15,776	17,325	33,101	20,791	62.81
1910.....	145	853	15,196	17,416	32,612	20,389	62.52
1911.....	148	898	14,679	17,548	32,227	20,177	62.60
1912.....	148	917	14,846	17,427	32,273	20,268	62.80
1913.....	161	970	15,489	18,257	33,746	21,448	63.55
1914.....	160	1,023	17,001	19,465	36,466	23,360	64.06
1915.....	160	1,020	17,705	20,721	38,426	24,825	64.60
1916.....	161	1,038	17,029	21,781	38,810	23,750	61.22

## 5.—Number of Teachers and Pupils in Continuation Schools in Ontario, 1911-1916.

NOTE.—Previously to 1911 the statistics of these Junior High Schools are included with the Elementary Schools.

Year.	Schools.	Teachers	Pupils enrolled.			Average attend- ance.	Per cent.
			Boys.	Girls.	Total.		
1911.....	129	218	2,394	3,359	5,753	3,487	60.61
1912.....	138	226	2,499	3,595	6,094	3,777	61.97
1913.....	125	218	2,229	3,315	5,544	3,386	61.07
1914.....	131	237	2,474	3,595	6,069	3,812	62.81
1915.....	132	238	2,803	3,997	6,800	4,274	62.85
1916-17....	132	234	1,979	3,103	5,082	3,729	73.37

## 6.—Number of Teachers and Pupils in High Schools in British Columbia, 1901-1916.

Year.	Schools. No.	Teachers No.	Pupils enrolled.			Average attend- ance.	Per cent.
			Boys. No.	Girls. No.	Total. No.		
1901.....	5	15	215	369	584	373	63.87
1902.....	7	21	313	471	784	564	71.94
1903.....	8	27	316	540	856	627	73.25
1904.....	10	29	381	600	981	685	69.83
1905.....	12	34	433	657	1,090	834	76.51
1906.....	13	37	473	763	1,236	923	74.68
1907.....	15	42	532	823	1,355	976	72.03
1908.....	16	49	613	857	1,470	1,124	76.46
1909.....	18	59	812	997	1,809	1,441	79.66
1910.....	21	66	919	1,122	2,041	1,549	75.89
1911.....	23	71	940	1,048	1,988	1,533	77.11
1912.....	24	77	973	1,178	2,151	1,645	76.48
1913.....	30	96	1,232	1,448	2,680	2,109	78.69
1914.....	34	110	1,414	1,593	3,007	2,535	84.30
1915.....	37	132	1,844	2,068	3,912	3,332	85.17
1916.....	40	162	2,260	2,510	4,770	3,816	80.00

## EDUCATION STATISTICS OF CANADA.

7.—Receipts and Expenditure for Public Education in Canada by Provinces,  
1901-1916.

## PRINCE EDWARD ISLAND.

Year.	Government Grant.	Local Assessment.	Total.	Year.	Government Grant.	Local Assessment.	Total.
	\$	\$	\$		\$	\$	\$
1901.....	128,288	36,647	164,935	1909.....	129,179	54,027	183,206
1902.....	127,495	38,827	166,322	1910.....	127,548	53,924	181,472
1903.....	123,919	42,698	166,617	1911.....	126,438	54,738	181,176
1904.....	121,696	47,069	168,765	1912 <sup>2</sup> .....	179,956	81,685	261,641
1905.....	122,807	45,695	168,502	1913.....	150,732	56,874	207,606
1906 <sup>1</sup> .....	91,946	34,763	126,709	1914.....	156,503	61,490	217,993
1907.....	123,898	46,429	170,327	1915.....	168,413	91,258	259,671
1908.....	127,092	49,874	176,966	1916.....	173,962	70,610	244,572

<sup>1</sup>Nine months. <sup>2</sup>Eighteen months.

## NOVA SCOTIA.

Year.	Government Grant.	Municipal Funds.	Local Assessment.	Total.
	\$	\$	\$	\$
1901.....	254,778	119,876	470,108	844,762
1902.....	257,615	117,376	538,850	913,841
1903.....	263,092	121,016	552,350	936,458
1904.....	268,904	146,382	569,745	985,031
1905.....	271,657	146,430	576,560	994,647
1906.....	270,926	147,089	655,705	1,073,720
1907.....	277,415	146,959	616,431	1,040,805
1908.....	305,612	147,130	666,590	1,119,332
1909.....	307,990	147,400	711,428	1,166,818
1910.....	317,499	146,936	761,014	1,225,449
1911.....	324,728	146,822	804,125	1,275,675
1912.....	328,107	147,170	859,284	1,334,561
1913.....	337,888	156,864	944,992	1,439,744
1914.....	342,132	164,980	1,002,967	1,510,079
1915.....	358,125 <sup>1</sup>	168,009	1,066,892	1,593,026 <sup>1</sup>
1916.....	370,146 <sup>1</sup>	168,114	1,037,302	1,575,562 <sup>1</sup>

<sup>1</sup>Not including \$44,592 for technical education.

## NEW BRUNSWICK.

Year.	Government Grant.	Municipal Funds.	Local Assessment.	Total.
1901.....	163,225	90,492	346,623	600,340
1902.....	162,227	92,095	341,475	595,797
1903.....	160,825	94,969	374,196	629,990
1904.....	156,982	94,835	380,000	631,817
1905.....	159,741	91,947	387,200	638,888
1906.....	160,957	91,718	No record	
1907.....	160,553	91,429	No record	
1908.....	182,453	91,620	494,947	769,020
1909.....	190,854	91,235	539,002	821,091
1910.....	195,363	90,454	580,069	865,886
1911.....	196,082	90,193	593,073	879,348
1912.....	196,958	93,783	632,384	923,125
1913.....	196,320	97,404	648,479	942,203
1914.....	195,261	96,946	704,476	996,683
1915.....	200,635	97,423	761,753	1,059,811
1916.....	206,486	96,141	844,256	1,146,883

## E D U C A T I O N .

7.—Receipts and Expenditure for Public Education in Canada by Provinces,  
1901-1916—con.

## QUEBEC.

Year.	Government Grants to		Local Expenditure for		Total.
	Elementary Schools.	Other Schools.	Elementary Schools.	Superior Schools.	
1901.....	235,000	218,950	1,688,743	1,311,061	3,453,754
1902.....	235,000	325,450	1,770,906	1,280,203	3,611,559
1903.....	235,000	248,964	1,935,113	1,298,961	3,718,038
1904.....	235,000	234,280	2,005,542	1,341,573	3,816,395
1905.....	235,000	245,760	2,199,371	1,404,387	4,084,518
1906.....	285,000	251,150	2,374,657	1,427,745	4,338,552
1907.....	285,000	334,850	2,532,900	1,517,841	4,670,591
1908.....	335,000	348,350	2,870,244	1,595,293	5,148,887
1909.....	386,000	451,450	3,031,072	1,649,344	5,517,866
1910.....	418,000	490,391	3,494,499	1,807,640	6,210,530
1911.....	462,572	602,657	3,702,297	2,026,807	6,794,333
1912.....	532,000	670,029	4,188,225	2,024,215	7,414,469
1913.....	658,823	752,593	4,188,225	2,024,215	7,623,856
1914.....	658,306	1,065,803	5,797,799	1,375,080	8,896,988
1915.....	629,000	1,153,417	5,993,837	3,687,369	11,463,623
1916.....	629,000	1,253,838	—	—	—

## ONTARIO (Elementary Schools).

Year.	Receipts.			Total.
	Government Grants.	Local Assessments.	Clergy Re- serve Fund and other sources.	
	\$	\$	\$	\$
1901.....	377,308	3,784,070	1,468,678	5,630,056
1902.....	383,666	3,959,912	1,422,924	5,766,502
1903.....	390,156	4,263,893	1,406,957	6,061,006
1904.....	405,362	4,464,227	1,600,982	6,470,571
1905.....	414,004	4,928,790	1,886,400	7,229,194
1906.....	509,795	5,529,496	1,883,394	7,922,685
1907.....	655,239	6,146,825	2,455,864	9,257,928
1908.....	770,426	6,581,232	2,620,523	9,972,181
1909.....	810,595	6,574,372	3,013,501	10,398,468
1910.....	805,635	7,334,458	3,573,507	11,713,600
1911.....	892,377	7,826,083	3,778,183	12,496,643
1912.....	842,278	9,478,887	3,936,887	14,258,052
1913.....	778,150	9,856,380	4,025,284	14,659,814
1914.....	760,845	12,608,865	4,069,565	17,439,275
1915.....	849,872	11,810,023	4,089,210	16,749,105
1916.....	831,988	11,010,356	4,237,738	16,080,082



## EDUCATION STATISTICS OF CANADA.

7.—Receipts and Expenditure for Public Education in Canada by Provinces,  
1901-1916—con.

## ONTARIO (Elementary Schools)—con.

## Expenditure.

Year.	Teachers' Salaries.	Sites and building School-houses.	Maps, apparatus, prizes, etc.	Rent, repairs, fuel and other Expenses.	Total.
	\$	\$	\$	\$	\$
1901.....	3,055,321	531,072	81,685	1,052,232	4,720,310
1902.....	3,198,132	432,753	86,723	1,107,552	4,825,160
1903.....	3,309,993	428,817	74,486	1,264,573	5,077,869
1904.....	3,473,710	578,656	87,997	1,319,130	5,459,493
1905.....	3,669,230	959,137	98,209	1,434,670	6,161,236
1906.....	3,880,548	854,452	108,547	1,559,659	6,403,206
1907.....	4,389,524	1,220,820	213,096	1,732,739	7,556,179
1908.....	4,643,571	1,419,754	139,330	1,741,171	7,943,826
1909.....	5,008,542	1,264,989	136,627	1,731,265	8,141,423
1910.....	5,310,039	2,140,200	131,171	1,761,792	9,343,102
1911.....	5,610,213	2,164,459	139,229	1,990,383	9,904,284
1912.....	6,109,547	2,777,960	167,755	2,218,695	11,273,960
1913.....	6,648,255	2,869,830	149,167	2,658,655	12,325,907
1914.....	7,203,034	4,626,030	167,283	2,854,621	14,850,968
1915.....	7,614,110	3,561,951	177,038	2,914,377	14,267,476
1916.....	7,929,490	2,232,110	192,212	2,998,093	13,351,905

## MANITOBA.

Year.	Receipts.						Total.
	Legis-lative grant.	Muni-cipal taxes.	Deben-tures.	Prom-issory notes.	Sundries.	Balance from previous years.	
	\$	\$	\$	\$	\$	\$	\$
1907.....	242,383	1,223,336	315,271	802,574	141,452	115,677	2,840,694
1908.....	267,645	1,475,473	285,091	777,417	424,666	111,741	3,342,033
1909.....	282,200	1,539,017	356,392	905,747	274,803	119,970	3,478,729
1910.....	296,115	1,682,238	425,320	1,336,370	281,988	162,736	4,184,768
1911.....	325,410	1,847,380	1,318,068	1,275,239	76,172	399,539	5,241,808
1913.....	351,745	2,198,459	987,457	960,215	213,283	302,407	5,013,566
1914.....	390,582	2,673,449	1,545,042	396,459	150,429	518,387	7,674,549
1915.....	468,335	3,047,670	1,738,926	2,071,397	122,974	466,837	7,916,139
1916.....	503,774	3,296,667	344,673	2,080,204	239,176	609,982	7,074,477

## E D U C A T I O N .

## 7.—Receipts and Expenditure for Public Education in Canada, by Provinces, 1901-1916—con.

## MANITOBA—con.

Year.	Expenditure.				
	Teachers' Salaries.	Building, etc.	Fuel.	Repairs and caretaking.	Salary of Sec.-Treas.
	\$	\$	\$	\$	\$
1907.....	1,009,224	460,260	79,963	126,216	23,420
1908.....	1,103,990	582,034	89,756	126,952	25,656
1909.....	1,203,232	641,900	80,921	132,421	26,174
1910.....	1,327,010	830,432	87,002	148,932	28,689
1911.....	1,452,630	1,199,288	109,299	167,734	29,218
1913.....	1,734,854	1,420,882	99,918	132,222	32,493
1914.....	1,861,809	1,426,758	146,664	242,270	37,684
1915.....	2,666,440	1,358,533	110,049	379,318	65,025
1916.....	2,195,226	823,266	165,697	358,315	41,530

Year.	Principal of Debentures.	Interest on Debentures.	Promissory notes.	Sundries and transportation.	Total.
	\$	\$	\$	\$	\$
1907.....	81,795	80,392	667,791	200,856	2,729,917
1908.....	190,893	99,246	869,334	141,905	3,229,767
1909.....	111,295	244,596	757,200	137,770	3,337,500
1910.....	269,660	127,589	1,013,076	168,281	4,000,671
1911.....	131,975	144,735	1,590,565	199,446	5,023,891
1913.....	294,030	95,979	838,163	370,757	5,036,795
1914.....	230,523	250,392	1,412,515	471,105	6,079,720
1915.....	184,911	344,476	2,260,906	347,242	7,116,898
1916.....	194,257	409,193	2,132,286	338,459	6,658,230

NOTE.—For a summary of the principal items of Receipts and Expenditure from 1901 to 1906, see Year Book of 1915, page 128. From 1907 the items are given in greater detail, as above. Owing to change of year, no figures were published for 1912.

## EDUCATION STATISTICS OF CANADA.

7.—Receipts and Expenditure for Public Education in Canada by Provinces,  
1901-1916—con.

## SASKATCHEWAN.

Year.	Receipts.				
	Government Grants.	Local Assessments.	Proceeds of Debentures.	Borrowed by Note.	Total.
	\$	\$	\$	\$	\$
1906.....	174,218	602,624	360,206	298,686	1,465,361
1907.....	218,385	707,835	507,006	474,324	1,957,472
1908.....	402,028	992,157	651,828	507,522	2,783,153
1909.....	513,604	1,249,192	584,873	667,549	3,192,271
1910.....	557,299	1,369,531	524,741	921,841	3,672,582
1911.....	555,438	1,519,528	659,270	1,204,322	4,029,792
1912.....	622,088	1,929,345	1,430,603	1,936,450	6,030,613
1913.....	722,002	2,913,135	2,075,375	2,470,834	8,360,421
1914.....	867,590	4,451,326	1,037,587	2,002,997	8,536,577
1915.....	980,296	3,997,392	1,009,025	—	8,428,493

## Expenditure.

Year.	Teachers' Salaries.	Officials' Salaries.	Paid on Debentures.	Paid on Notes (renewals and interest).	School buildings and repairs.	Care-taking and fuel.	Total Expenditure.
	\$	\$	\$	\$	\$	\$	\$
1906.....	471,736	29,076	113,958	303,739	339,933	47,251	1,448,915
1907.....	585,594	44,047	149,301	423,717	530,050	84,565	2,000,675
1908.....	831,842	59,106	207,780	608,515	577,925	95,762	2,679,373
1909.....	1,044,011	73,098	317,173	700,483	519,302	130,558	3,032,999
1910.....	1,208,651	83,635	379,695	877,978	627,740	144,206	3,655,428
1911.....	1,298,925	84,603	369,951	1,071,783	619,601	172,993	3,989,036
1912.....	1,596,616	94,358	455,949	1,820,705	1,149,986	202,531	5,931,844
1913.....	2,959,456	130,728	678,430	2,605,280	1,898,101	294,710	8,327,178
1914.....	2,588,669	169,491	975,508	2,317,158	1,429,173	369,802	8,588,462
1915.....	2,817,412	—	—	—	1,253,187	—	8,163,897



## EDUCATION.

7.—Receipts and Expenditure for Public Education in Canada by Provinces,  
1901-1916—concluded.

## ALBERTA.

Year.	Receipts.				
	Government Grants.	Local Assessments.	Proceeds of Debentures.	Borrowed by Note.	Total.
	\$	\$	\$	\$	\$
1906.....	142,836	416,344	297,158	292,786	1,289,921
1907.....	197,768	544,716	442,431	431,561	1,776,700
1908.....	220,712	917,515	764,069	539,939	2,548,617
1909.....	307,186	961,959	992,516	535,896	3,031,997
1910.....	301,239	1,278,013	673,333	848,625	3,187,365
1911.....	432,877	1,575,412	1,481,173	1,461,208	5,071,033
1912.....	414,116	1,793,480	1,491,498	2,665,063	6,626,918
1913.....	461,289	2,901,214	3,497,863	1,959,495	9,048,511
1914.....	507,682	3,028,776	966,350	2,771,380	7,553,512
1915.....	540,235	3,733,323	951,205	2,473,976	7,957,604
1916.....	600,085	3,749,007	155,883	1,105,538	6,767,383

## Expenditure.

Year.	Teachers' Salaries.	Official Salaries.	Paid on Debentures.	Paid on Notes (renewals and interest).	Schools building and repairs.	Care-taking and fuel.	Total Expenditure.
	\$	\$	\$	\$	\$	\$	\$
1906.....	386,108	23,796	94,947	298,984	274,525	40,729	1,259,107
1907.....	497,746	36,755	131,488	295,517	486,824	58,451	1,793,953
1908.....	592,223	39,594	207,775	639,459	607,637	78,421	2,398,682
1909.....	758,816	52,785	244,185	574,725	638,065	96,795	2,735,858
1910.....	968,045	64,241	347,220	653,987	862,295	111,517	3,362,394
1911.....	1,144,584	87,409	408,442	1,309,134	1,223,142	157,034	5,025,773
1912.....	1,411,201	114,382	482,906	2,021,030	1,526,001	181,449	6,667,282
1913.....	1,672,526	180,165	594,051	3,160,030	1,816,203	233,668	8,684,186
1914.....	2,050,697	179,452	815,062	2,350,462	1,324,470	267,644	7,834,891
1915.....	2,244,964	185,610	1,065,437	2,731,279	443,641	275,273	7,965,470
1916.....	2,421,404	230,931	956,565	1,266,884	325,297	236,939	6,121,614

## BRITISH COLUMBIA.

Year.	Provincial Government.	Cities, Municipalities, Rural and Assisted Schools.	Total.	Year.	Provincial Government.	Cities, Municipalities, Rural and Assisted Schools.	Total.
	\$	\$	\$		\$	\$	\$
1901.....	350,532	182,160	532,692	1909....	626,074	921,626	1,547,700
1902.....	438,086	150,482	588,568	1910....	818,576	1,098,660	1,917,236
1903.....	473,802	130,556	604,358	1911....	1,001,808	1,639,714	2,641,522
1904.....	453,313	144,451	597,764	1912....	1,151,715	2,730,773	3,882,488
1905.....	479,158	249,891	729,049	1913....	1,663,003	2,995,892	4,658,895
1906.....	444,543	244,198	688,741	1914....	1,885,654	2,749,223	4,634,877
1907.....	474,608	390,163	864,771	1915....	1,607,651	2,309,795	3,917,446
1908.....	544,672	675,838	1,220,510	1916....	1,591,322	1,625,028	3,216,350

## EDUCATION STATISTICS OF CANADA.

## 8.—Average Annual Salaries of Teachers by Provinces, 1915-1916.

Province and Class of Certificate.	Male.	Female.	Province and Class of Certificate.	Male.	Female.
	\$	\$		\$	\$
Prince Edward Island, 1916			Ontario, 1915—con.		
Prince County:			Roman Catholic Separate Schools:		
First class.....	462	372	Rural.....	545	438
Second class.....	350	295	Cities.....	676	403
Third class.....	276	220	Towns.....	510	364
Drawing first class pay <sup>1</sup> ..	543	435	Villages.....	—	393
Queens County:			Manitoba, 1916—		
First class.....	544	424	Highest salary.....	3,500	
Second class.....	330	271	Average salary for province.....		768
Third class.....	265	217	Average cities and towns.....		957
Drawing first class pay <sup>1</sup> ..	775	545	Highest rural school....	1,000	
Kings County:			Average rural school....		619
First class.....	410	296	Saskatchewan, 1915—		
Second class.....	334	265	Rural schools:		
Third class.....	258	201	First class.....	832	797
Drawing first class pay <sup>1</sup> ..	525	349	Second class.....	813	779
Nova Scotia, 1916—			Third class.....	785	749
Class A.....	871	482	Provisional.....	779	742
Class B.....	677	392	Cities, towns and villages:		
Class C.....	419	316	First class.....	1,298	873
Class D.....	262	238	Second class.....	1,015	800
Academic.....	1,247	783	Third class.....	849	737
New Brunswick, 1916—			Provisional.....	825	764
First class.....	874	482	Alberta, 1915—		
Second class.....	394	319	First class.....	1,120	827
Third class.....	291	262	Second class.....	816	777
Superior schools.....	799		Third class.....	757	753
Grammar schools.....	1,241		Permit.....	749	717
Quebec, 1915— <sup>2</sup>			Specialist.....	1,606	1,032
Protestant schools:			British Columbia, 1916—		
Urban teachers.....	1,409	491	City Schools:		
Rural teachers.....	474	281	Highest salary.....	2,700	
Roman Catholic schools:			Lowest salary.....	600	
Urban teachers.....	684	265	Rural Municipality schools:		
Rural teachers.....	586	178	Highest salary.....	2,700	
Ontario, 1915—			Lowest salary.....	600	
Public schools:			Rural Assisted Schools:		
First class.....	1,433	668	Highest salary.....	1,500	
Second class.....	830	647	Lowest salary.....	600	
Third class and district certificate.....	526	479			
Temporary certificate...	454	408			

<sup>1</sup>According to regulations, a teacher, though holding a first class license, can draw first class pay only if he be a principal of a first class school, or a vice-principal of a school of six or more departments. All other first class teachers receive only second class pay. This arrangement lowers considerably the average salaries of teachers of the highest class.

<sup>2</sup>In Quebec teachers are described as "lay teachers with diploma."

## EDUCATION.

## 9.—Universities of Canada: Foundation, Affiliation, Faculties and Degrees.

Name and Address	Date of		Affiliation to other Universities.	Faculties.	Degrees.
	Original Founda- tion.	Present Charter.			
University of King's College, Windsor, N.S.	1789	1802	Oxford and Cambridge.	Arts, Law, Science, Divinity.	B.A., M.A., B.Sc., D.Sc., M.Sc., B.C.L., D.C.L., B.D., D.D.
Dalhousie University, Halifax, N.S.	1818	1863	Oxford and Cambridge.	Arts and Science, Law, Medicine and Dentistry.	B.A., M.A., B.Sc., L. Mus., M.Sc., B.Mus., Phm.B., LL.B., M.D., C.M., D.D.S., LL.D. (Hon.).
Acadia University, Wolfville, N.S.	1838	1840	Oxford, Dalhousie and McGill, Nova Scotia Technical.	Arts, Divinity, Law, Science, Applied Science, Literature.	B.A., B.Sc., B.Th. and M.A.
University of St. Francis Xavier, Antigonish, N.S.	1855	1909	—	Arts, Science, Engineering, Law.	B.A., M.A., B.Sc. LL. D.
University of New Brunswick, Fredericton, N.B.	1800	1860	Oxford, Cambridge, Dublin, McGill.	Arts, Applied Science, Partial Course in Law.	B.A., M.A., B.Sc., in Civil Engineering, Electrical Engineering or Forestry, D.Sc.
Mount Allison University, Sackville, N.B.	1858	1886-1913	Dalhousie, Oxford and Cambridge.	Arts, Theology, Engineering.	B.A., M.A., B.Sc., B.D.
University of St. Joseph's College, St. Joseph, N.B.	1864	1898	Oxford.	Arts, Science.	B.A., B.S., B.L., B.C.S., M.A.
McGill University, Montreal, Que.	1821	1852	Acadia, Mt. Allison, St. François-Xavier, Alberta are affiliated to McGill in the Faculty of Applied Science.	Arts, Applied Science, Law, Medicine, Agriculture.	B.A., M.A., B.C.L., D.C.L., LL.D., B.Sc., D.Sc., D.D.S., M.Sc., B.Mus., D.Mus., C.M., B.S.A., D.Sc., B.Arch., M.D., D.Litt., Ph.D.
University of Bishop's College, Lennoxville, Que.	1843	1853	Oxford and Cambridge.	Arts, Divinity, Medicine and Law.	B.A., M.A., B.D., D.D., D.C.L., Mus.Bac., Mus. Doc., L.S.T.
Laval University, Quebec, Que.	1852	1852	—	Theology, Law, Medicine, Arts.	M.A., B.A., B.S., B.L., Ph.D., Ph.L., Ph.B., M.D., M.B., LL.B., LL.L., LL.D., D.B., D.L., D.D., C.L.B., C.L.L., C.L.D.
Laval University, Montreal, Que.	1878	1852	—	Theology, Law, Medicine, Arts.	Bachelor, Licentiate, Doctor.

## STATISTICS OF UNIVERSITIES OF CANADA.

## 9.—Universities of Canada: Foundation, Affiliation, Faculties and Degrees—concluded.

Name and Address	Date of		Affiliation to other Universities.	Faculties.	Degrees.
	Original Foundation.	Present Charter.			
University of Toronto, Toronto, Ont.	1827	Act 1906	Oxford, Cambridge and Dublin.	Arts, Medicine, Applied Science, Engineering, Agriculture, Forestry, Education, Household Science.	B.A., M.A., Ph.D., LL.B., LL.M., LL.D., Mus. Bac., Mus. Doc., M.B., M.D., B.A. Sc., M.A.Sc., C.E., E.E., M.E., B.Pæd., D. Pæd., B.S.A., B.Sc.A., B.Sc. F., F.E., D.D.S., Phm.B., B.V.Sc., D.V.Sc.
Victoria University, Toronto,	1836	1836	Toronto.	Arts and Theology.	B.D., D.D.
University of Trinity College, Toronto, Ont.	1851	1852	Toronto.	Arts and Divinity.	L.Th., B.D., D.D.
Western University, London, Ont.	1878	1908	—	Arts, Medicine and Public Health, Music.	B.A., M.A., M.D., LL.D., D.Sc., D.P.H., Mus. Bach.
Queen's University, Kingston, Ont.	1841	1841	—	Arts, Science, Medicine, Education, Theology.	B.A., M.A., B.Sc., D.Sc., M.Sc., M.D., M.B., LL.D., B.D., D.D., B. Pæd., D. Pæd.
University of Ottawa, Ottawa, Ont.	1849	1866	—	Theology, Philosophy, Law, Arts and Commercial.	LL.D., D.D., B. Ph., D. Ph., B.A., M.A.
McMaster University, Toronto, Ont.	1857	1887	—	Arts, Theology.	B.A., M.A., B.Sc., B. Sc. (Agr.), B.Th., B.D.
University of Manitoba, Winnipeg, Man.	1877	1877	—	Arts, Science, Law, Medicine, Engineering, Architecture, Pharmacy, Agriculture.	B.A., M.A., B.Sc., M.D., C.M., B.C.E., B.E.E., M.C.E., M.E.E., B.M.E., B.Arch., Phm.B., B.S.A., LL.B., LL.D.
University of Saskatchewan, Saskatoon, Sask.	1907	1907	Oxford.	Arts, Science, Law, Agriculture, Engineering, Pharmacy.	B.A., B.Sc., B.S.A., B.E., LL.B., M.A., M.Sc.
University of Alberta, Edmonton, Alta.	1906	1910	Oxford, McGill and Toronto.	Arts & Sciences, Applied Science, Agriculture, Medicine, Law, Schools of Pharmacy and Accountancy.	B.A., B.Sc., M.A., B.S.A., M.Sc., LL.B., Phm.B., B.D., LL.D.
University of British Columbia, Vancouver, B.C.	1907	1908	—	Arts, Applied Science and Agriculture.	B.A. B.Sc.



## EDUCATION.

## 10.—Universities of Canada: Number of Teaching Staff and Students, 1915-16.

Name and Address.	Number of Teaching Staff.			Number of Students.		
	Male.	Female.	Total.	Male.	Female.	Total.
University of King's College, Windsor, N.S.....	13	1	14	51	6	57
Dalhousie University, Halifax, N.S.....	80	—	80	248	91	339
Acadia University, Wolfville, N.S.....	18	1	19	70	50	120
University of St. Francis Xavier, Antigonish, N.S....	20	—	20	202	40	242
University of New Brunswick, Fredericton, N.B....	11	—	11	94	22	116
Mount Allison University, Sackville, N.B.....	24	—	24	117	84	201
University of St. Joseph's College, St. Joseph, N.B....	30	—	30	344	—	344
McGill University, Montreal, Que.....	247	7	254	1,096	237	1,333
University of Bishop's College, Lennoxville, Que.....	9	—	9	43	10	53
Laval University, Quebec, Que.....	140	—	140	1,189	—	1,189
Laval University, Montreal, Que.....	281	23	304	2,430	884	3,314
University of Toronto, Toronto, Ont.....	376	22	398	2,328	1,540	3,868
Victoria University, Toronto, Ont.....	27	—	27	239	167	406
University of Trinity College, Toronto, Ont.....	18	4	22	49	47	96
Queen's University, Kingston, Ont.....	126	—	126	1,006	287	1,293
Western University, London, Ont.....	78	1	79 <sup>1</sup>	103	34	137
University of Ottawa, Ottawa, Ont.....	47	—	47	730	—	730
McMaster University, Toronto, Ont.....	21	—	21	211	54	265
University of Manitoba, Winnipeg, Man.....	50	1	51	521	178	699
University of Saskatchewan, Saskatoon, Sask.....	49	5	54	241	48	289
University of Alberta, Edmonton, Alta.....	40	2	42	361	57	418
University of British Columbia, Vancouver, B.C....	37	1	38	190	178	368

<sup>1</sup> Teaching staff employed full time 27, part time 52.

## STATISTICS OF UNIVERSITIES OF CANADA.

## 11.—Universities of Canada: Financial Statistics, 1915-16.

Name and Address.	Value of Endowments.	Value of Land and Buildings.	Sources of Income.					Expenditure.
			Investments.	Government Grants.	Fees.	Other Sources.	Total Income.	
University of King's College, Windsor, N.S.	\$ 260,000	\$ 125,000	\$ 10,700	Nil	\$ 1,850	Nil	\$ 12,550	\$ 15,000
Dalhousie University, Halifax, N.S.	493,782	530,000	26,685	1,200	21,985	3,205	53,076	62,434
Acadia University, Wolfville, N.S.	555,821	352,800	22,381	Nil	8,507	9,247	40,135	38,875
University of St. Francis Xavier, Antigonish, N.S.	67,572	309,514	3,000	-	30,398	11,000	44,398	46,023
University of New Brunswick, Fredericton, N.B.	100,000	300,000	2,200	20,000 <sup>2</sup>	5,000	300	27,500	28,400
University of St. Joseph College, St. Joseph, N.B.	-	200,000	-	-	30,000 <sup>3</sup>	5,000	35,000	35,000
Mount Allison University, Sackville, N.B.	331,714	143,731	19,960	-	23,486	5,395	48,841	53,174
McGill University, Montreal, Que.	8,562,417	8,421,891	465,735	32,000	171,793	101,410	770,938	781,268
University of Bishop's College, Lennoxville, Que.	220,395	235,625	14,871	2,500	6,465	1,676	25,512	25,713
Laval University, Quebec, Que.	15,000	2,000,000	5,000	25,000	24,000	13,000	67,000	67,000
University of Toronto, Toronto, Ont.	6,900,376 <sup>2</sup>	5,529,743 <sup>3</sup>	42,604	526,367	215,312	72,587	856,870	912,359
Queen's University, Kingston, Ont.	825,000	-	52,785	106,000	75,328	69,437	303,550	319,506
Western University, London, Ont.	200,000	100,000	-	50,000	12,000	20,000	82,000	-
University of Ottawa, Ottawa, Ont.	-	410,000	-	-	45,000	50,000	95,000	86,000
McMaster University, Toronto, Ont.	900,000	425,000	45,000	Nil	21,000	18,000	84,000	65,000
Victoria University, Toronto, Ont.	773,683	1,079,685	48,735	-	12,151	18,208	79,097	94,732
University of Manitoba, Winnipeg, Man.	757,186 <sup>4</sup>	891,036 <sup>5</sup>	41,599	107,347	26,372	1,555	176,873	176,225
University of Saskatchewan, Saskatoon, Sask.	15,000	1,784,000	1,400	199,965	10,726	24,466	227,557	212,875
University of Alberta, Edmonton, Alber.	-	4,607,422	-	160,000	7,500	18,084	185,584	173,100
University of British Columbia, Vancouver, B.C.	32,000	-	1,600	200,000	7,600	-	209,200	209,200

<sup>1</sup> Includes equipment.<sup>2</sup> This figure includes the valuations attached to site of lands, buildings and contents.<sup>3</sup> Includes equipment valued at \$941,096.<sup>4</sup> This sum represents unsold lands of the estimated value of \$628,236 and a special trust for scholarships only of \$128,950.<sup>5</sup> Two building sites, one in the city and one outside, are held under perpetual lease from Provincial Government at nominal rental.<sup>6</sup> Including board, etc.

## E D U C A T I O N .

## 12.—Colleges of Canada: Foundation, Affiliation, Faculties and Degrees.

Name and Address	Date of		University Affiliation.	Faculties.	Degrees.
	Original Founda- tion.	Present Charter.			
Prince of Wales College, Charlottetown, P.E.I.	1836	1860	Dalhousie Acadia, Mt. Allison	Arts.	—
Presbyterian College, Halifax, N.S.	1820	—	Dalhousie.	Theology.	D.D., B.D.
College of Sainte-Anne, Church Point, N.S.	1890	1892	—	Arts, Science.	B.A., B.Sc., M.A.
Technical College, Halifax, N.S.	1907	—	Acadia, Kings, St. Mary's, Dalhousie, Mt. Allison, St. Francis Xavier.	Engineering.	B.Sc. in M.E., C.E., E.E., Mch. E.
Agricultural College, Truro, N.S.	1888	1905	—	Agriculture.	Associate Diploma.
Royal Naval College, Halifax N.S.	1911	—	—	—	Midshipman, R.C.N.
Holy Heart Theological College, Halifax, N.S.	1894	1906	—	Theology, Philosophy.	T.B., T.L., D.D., Ph.D.
St. Mary's College, Halifax, N.S.	1841	1841	—	Arts, Partial Course in Engineering.	B.A.
Macdonald College, Ste. Anne de Bellevue, Que.	1907	—	McGill	Agriculture.	B.S.A.
Ecole Des Hautes Etudes Commerciales, Montreal, Que.	1907	1907	Laval.	—	L.S.C., C.L.
Stanstead Wesleyan College, Stanstead, Que.	1872	1872	—	Arts, Commercial, Music.	Diploma.
Presbyterian College, Montreal, Que.	1865	1865	McGill.	Theology.	B.D., D.D.
Congregational College of Canada, Montreal, Que.	1839	Amended 1864 & 1889	McGill.	Theology.	B.D., D.D.

## STATISTICS OF COLLEGES OF CANADA.

## 12.—Colleges of Canada: Foundation, Affiliation, Faculties and Degrees—con.

Name and Address	Date of		University Affiliation.	Faculties.	Degrees.
	Original Founda- tion.	Present Charter.			
Montreal Diocesan Theological College, Montreal, Que.	1873	1879	McGill.	Divinity.	B.D., D.D.
Wesleyan Theological College, Montreal, Que.	1872	1879	McGill.	Theology.	B.D., S.T.D., D.D.
Wycliffe College, Toronto, Ont.	1879	1916	Toronto.	Theology.	L.Th., B.D., D.D.
Knox College, Toronto, Ont.	1843	1858	Toronto.	Theology.	B.D., D.D.
St. Michael's College, Toronto, Ont.	1852	—	Toronto	Arts.	B.A., M.A., Ph.D. <sup>1</sup>
Ontario Agricultural College, Guelph, Ont.	1874	1874	Toronto.	Agricultural, Domestic Science, Manual Training.	B.S.A.
Ontario College of Art, <sup>2</sup> Toronto, Ont.	1912	1912	—	—	Diploma.
Ontario College of Pharmacy, Toronto, Ont.	1871	1884	Toronto.	Pharmacy.	<sup>3</sup>
Royal College of Dental Surgeons of Ontario, Toronto, Ont.	1868	1911	Toronto.	Dentistry.	L.D.S. <sup>4</sup>
Ontario Veterinary College, Toronto, Ont.	1862	Taken over by Government in 1908.	Toronto.	Veterinary.	V.S. <sup>5</sup>
Waterloo College, Lutheran Theological Seminary, Waterloo, Ont.	1911	1912	—	Arts, Theology.	B.A., M.A.
Huron College, London, Ont.	1863	1863	Western University.	Theology.	Diploma with title L.Th. <sup>6</sup>
St. Jerome's College, Kitchener, Ont.	1864	1866	—	Arts, Scholastic Philosophy.	—

<sup>1</sup>Degrees conferred by the Toronto University. <sup>2</sup>Succeeding Ontario School of Art founded in 1876. <sup>3</sup>The University of Toronto grants the degree Phm. B. <sup>4</sup>The Degree of D.D.S. is conferred by the University of Toronto. <sup>5</sup>The degrees of B.V.Sc. and D.V.Sc. are conferred by the University of Toronto. <sup>6</sup>Degrees in Arts and Theology are conferred by the Western University.



## E D U C A T I O N .

## 12.—Colleges of Canada: Foundation, Affiliation, Faculties and Degrees—concluded.

Name and Address	Date of		University Affiliation.	Faculties.	Degrees.
	Original Foundation.	Present Charter.			
Royal Military College, Kingston, Ont.	1875	—	—	—	Diploma and Diploma with Honours.
Albert College, Belleville, Ont.	1857	1884	Toronto and Victoria.	—	M.L.A., M.E.L.
Brandon College, Brandon, Man.	1899	—	McMaster.	Arts, Theology, Academic, Business, Music.	B.A. by McMaster, University.
The Manitoba Law School, Winnipeg, Man.	1914	—	Manitoba.	Law.	LL.B. by University.
Wesley College, Winnipeg, Man.	1877	1877	Manitoba.	Arts, Theology, Matriculation.	B.D., D.D. <sup>1</sup>
Manitoba Agricultural College, Winnipeg, Man.	1903	—	Manitoba.	Agriculture, Home Economics	B.S.A.
St. John's College, Winnipeg, Man.	1866	—	Manitoba.	—	B.D.
Manitoba Medical College, Winnipeg, Man.	1883	1884	Manitoba.	Medicine.	M.D., M.C.
Jon Bjarnason Academy, Winnipeg, Man.	1913	1915	—	—	—
Emmanuel College, Saskatoon, Sask.	1879	1883	Saskatchewan.	Divinity.	L.Th., B.D., D.D.
Presbyterian Theological College, Saskatoon, Sask.	1911	—	Saskatchewan.	Divinity.	B.D., D.D.
St. Chad's College, Regina, Sask.	1907	—	Saskatchewan.	Divinity.	—
Columbia Methodist College, New Westminster, B.C.	1892	1893	Toronto.	Academic, Music, Business.	Diplomas.
Edmonton Jesuit College, Edmonton, Alberta.	1913	1913	—	Preparatory, Commercial, Classical.	—
Robertson College, Edmonton (South) Alberta.	1910	1916	Alberta.	Theology.	D.D.
Alberta College, Edmonton, Alberta.	1903	1911	Alberta.	Academic, Commercial, Music.	Diplomas.
Institute of Technology and Art, Calgary, Alberta.	1916	—	—	Technical Courses.	—

<sup>1</sup>The degree of B.A. is conferred by the University of Manitoba.

## STATISTICS OF COLLEGES OF CANADA.

## 13.—Colleges of Canada: Number of Teaching Staff and Students.

Name and Address.	Number of Teaching Staff.			Number of Students.		
	Male.	Female.	Total.	Male.	Female.	Total.
Prince of Wales College, Charlottetown, P.E.I.....	7	2	9	91	190	280
Presbyterian College, Hali- fax, N.S.....	5	—	5	16	—	16
College of Sainte - Anne, Church Point, N.S.....	21	—	21	195	—	195
Technical College, Halifax, N.S.....	7	—	7	40	—	40
Agricultural College, Truro, N.S.....	19	1	20	50	4	54 <sup>1</sup>
Royal Naval College, Hali- fax, N.S.....	9	—	9	26	—	26
Holy Heart Theological Col- lege, Halifax, N.S.....	8	—	8	46	—	46
St. Mary's College, Halifax, N.S.....	10	—	10	100	—	100
Macdonald College, St. Anne de Bellevue, Que.....	40	20	60	70	220	290
Ecole Des Hautes Etudes Commerciales, Montreal, Que.....	21	—	21	85	—	85
Stanstead Wesleyan College, Stanstead, Que.....	6	12	18	151	154	305
Presbyterian College, Mont- real, Que. ....	4	—	4	27	—	27
Congregational College of Canada, Montreal, Que. .	3	—	3	21	—	21
Montreal Diocesan Theolog- ical College, Montreal, Que.	5	—	5	29	—	29
Wesleyan Theological Col- lege, Montreal, Que.....	5	—	5	65	—	65
Wycliffe College, Toronto, Ont.....	7	1	8	45	—	45
Knox College, Toronto, Ont.	8	—	8	52	26	78
St. Michael's College, Tor- onto, Ont.....	18	11	29	226	65	291
Ontario Agricultural College, Guelph, Ont.....	45	9	54	958	150	1,108
Ontario College of Art, Tor- onto, Ont.....	9	6	15	65	320	385

<sup>1</sup>240 Males and 241 Females took "Short Courses."

## EDUCATION.

## 13.—Colleges of Canada: Number of Teaching Staff and Students—concluded.

Name and Address.	Number of Teaching Staff.			Number of Students.		
	Male.	Female.	Total.	Male.	Female.	Total.
Royal College of Dental Surgeons of Ontario, Toronto, Ont.....	37	—	37	321	1	322
Ontario Veterinary College, Toronto, Ont.....	20	—	20	189	—	189
Waterloo College, Lutheran and Theological Seminary, Waterloo, Ont.....	7	1	8	25	1	26
Huron College, London, Ont.	6	1	7	26	—	26
St. Jerome's College, Kitchener, Ont.....	15	—	15	115	—	115
Royal Military College, Kingston, Ont.....	18	—	18	142	—	142
Albert College, Belleville, Ont.....	4	10	14	75	52	127
Brandon College, Brandon, Man.....	10	7	17	88	147	235
The Manitoba Law School, Winnipeg, Man.....	12	—	12	130	8	138
Wesley College, Winnipeg, Man.....	17	2	19	216	63	279
Manitoba Agricultural College, Winnipeg, Man.....	30	6	36	253	105	358 <sup>1</sup>
St. John's College, Winnipeg, Man.....	9	—	9	144	12	156
Manitoba Medical College, Winnipeg, Man.....	40	—	40	117	8	125
Jon Bjarnason Academy, Winnipeg, Man.....	2	1	3	19	12	31
Emmanuel College, Saskatoon, Sask.....	4	—	4	12	—	12
Presbyterian Theological College, Saskatoon, Sask.	2	—	2	22	—	22
St. Chad's College, Regina, Sask.....	5	—	5	7	—	7
Edmonton Jesuit College, Edmonton, Alberta.....	3	—	3	27	—	27
Robertson College, Edmonton (South) Alberta.....	14	—	14	110	—	110
Alberta College, Edmonton (North), Alberta.....	10	15	25	500	600	1,100
Institute of Technology and Art, Calgary, Alberta....	16	2	18	319	106	425
Columbian Methodist College, New Westminster, B.C.....	4	11	15	28	63	91

<sup>1</sup> In addition there were 12 Extension lectures and 365 "Short Course" students.

## STATISTICS OF COLLEGES OF CANADA.

14.—Colleges of Canada: Financial Statistics, 1916.

Name and Address.	Value of Endowments.	Value of Land and Buildings.	Sources of Income.					Expenditure.
			Investments.	Government Grants.	Fees.	Other Sources.	Total Income.	
	\$	\$	\$	\$	\$	\$	\$	\$
Prince of Wales College, Charlottetown, P.E.I.	—	200,000	—	20,000	1,200	—	—	—
Presbyterian College, Halifax, N.S.	195,000	250,000	6,985	—	—	9,725	16,710	18,000
College of Saint-Anne, Church Point, N.S.	—	90,000	—	—	18,000	2,000	20,000	21,500
Technical College, Halifax, N.S.	—	400,000	—	25,000	—	—	25,000	25,000
Agricultural College, Truro, N.S.	—	270,000	—	54,638	—	—	54,638	54,638
Royal Naval College, Halifax, N.S.	—	—	—	—	1,300	—	—	78,229
Holy Heart Theological College, Halifax, N.S.	—	100,000	—	—	6,200	1,500	7,700	8,500
St. Mary's College, Halifax, N.S.	—	100,000	—	—	9,700	5,000	14,700	15,000
Macdonald College, St. Anne de Bellevue, Que.	3,000,000	3,000,000	150,000	25,000	10,000	29,000	214,000	210,000
Ecole des Hautes Etudes Commerciales, Montreal, Que.	—	739,150	—	50,000	3,699	—	53,699	53,563
Stanstead Wesleyan College, Stanstead, Que.	121,440	100,000	6,582	600	28,931	1,003	37,116	36,320
Presbyterian College, Montreal, Que.	390,257 <sup>1</sup>	170,000	19,480	—	20	7,818	27,318	25,300
Congregational College of Canada, Montreal, Que.	118,000	200,000	6,000	—	—	4,000	10,000	10,000

<sup>1</sup>Includes Scholarships amounting to \$27,842.



## EDUCATION.

14.—Colleges of Canada: Financial Statistics, 1916—con.

Name and Address.	Value of Endowments.	Value of Land and Buildings.	Sources of Income.					Expenditure.
			Investments.	Government Grants.	Fees.	Other Sources.	Total Income.	
	\$	\$	\$	\$	\$	\$	\$	\$
Montreal Diocesan Theological College, Montreal, Que.....	190,000	106,000	9,600	—	3,473	4,927	18,000	18,000
Wesleyan Theological College, Montreal, Que.....	127,128	250,000	8,200	—	1,257	8,383	17,840	17,053
Wycliffe College, Toronto, Ont.....	250,000	230,000	14,000	—	6,000	19,000	39,000	39,000
Knox College, Toronto, Ont.....	446,000	700,000	24,629	—	160	16,371	41,160	39,802
St. Michael's College, Toronto, Ont.....	—	—	—	—	11,640	8,000	19,640	23,000
Ontario Agricultural College, Guelph, Ont.....	—	1,500,000	—	300,000	1	1	300,000	300,000
Ontario College of Art, Toronto, Ont.....	—	5,000	—	6,500	4,000	3,000	13,500	13,500
Royal College of Dental Surgeons of Ontario, Toronto, Ont.....	—	200,000	—	—	40,000	14,000	54,000	50,000
Ontario Veterinary College, Toronto, Ont.....	—	350,000	—	—	—	—	—	23,063
Waterloo College, Lutheran and Theological Seminary, Waterloo, Ont.....	—	50,000	—	—	750	5,300	6,050	5,600
Huron College, London, Ont.....	91,807	36,637	4,829	—	1,316	3,377	9,522	8,117
St. Jerome's College, Kitchener, Ont..	—	110,000	—	—	18,000	2,000	20,000	18,500
Royal Military College, Kingston, Ont..	—	—	—	160,000	11,000	25,000	196,000	135,000

<sup>1</sup>Returned to Government as Revenue (\$90,000).

## STATISTICS OF COLLEGES OF CANADA.

14.—Colleges of Canada: Financial Statistics, 1916—concluded.

Name and Address.	Value of Endowments.	Value of Land and Buildings.	Sources of Income.					Expenditure.
			Investments.	Government Grants.	Fees.	Other Sources.	Total Income.	
Albert College, Belleville, Ont.....	\$ —	\$ 124,025	\$ —	\$ —	\$ 23,712	\$ 1,000	\$ 24,712	\$ 28,492
Brandon College, Brandon, Man. <sup>1</sup> .....	64,584	146,000	5,000	—	15,000 to 20,000	—	—	—
The Manitoba Law School, Winnipeg, Man.....	—	—	—	—	3,900	6,600	10,500	—
Wesley College, Winnipeg, Man.....	125,000	1,650,000	10,000	—	10,000	30,000	50,000	50,000
Manitoba Agricultural College, Winnipeg, Man.....	—	4,000,000	—	200,000	7,000	66,000	273,000	190,000
St. John's College, Winnipeg, Man.....	250,000	250,000	12,000	—	20,000	—	32,000	30,000
Manitoba Medical College, Winnipeg, Man.....	—	150,000	—	—	17,000	—	17,000	15,000
Jon Bjarnason Academy, Winnipeg, Man.....	14,000	600	500	—	900	1,600	3,000	3,000
Emmanuel College, Saskatoon, Sask.....	10,000	70,000	750	—	—	15,000	15,750	15,000
Presbyterian Theological College, Saskatoon, Sask.....	—	50,000	2,000	—	100	7,000	7,100	7,000
St. Chad's College, Regina, Sask.....	8,500	150,000	800	—	1,400	2,070	4,270	4,270
Edmonton Jesuit College, Edmonton, Alberta.....	110,000	80,000	500	—	14,000	2,000	16,500	18,000
Robertson College, Edmonton (South), Alberta.....	4,000	10,000	300	—	—	7,700	8,000	8,000
Columbian Methodist College, New Westminster, B.C.....	—	123,000	—	—	11,800	7,200	19,000	20,400
Alberta College, Edmonton (North), Alberta.....	—	65,000 <sup>2</sup>	—	—	30,000	250	30,250	30,000
Institute of Technology and Art, Calgary, Alberta.....	—	—	—	37,000	4,500	—	41,500	29,000

<sup>1</sup>Figures of 1915.<sup>2</sup>Including equipment valued at \$15,000.

## V.—CLIMATE AND METEOROLOGY.

### THE WEATHER OF CANADA DURING THE YEAR 1916.

Information furnished by the Dominion Meteorological Service, Toronto.

#### JANUARY.

**Temperature.**—The most remarkable feature of the weather of the first month of the year was the extreme cold experienced in British Columbia and the greater portion of the Prairie Provinces. In the lower Fraser valley and on Vancouver Island the mean temperature of the month ranged 8° to 16° lower than the normal January temperature, and over the remainder of the province was from 12° to 25° below the normal. In Alberta the negative departures from normal ranged between 9° and 30°; in Saskatchewan from 10° to 18°. In Manitoba, the mean of the month was from 9° to 12° lower than the normal in the Souris and Assiniboine basins, but over the remainder of the settled areas of the province the defect was smaller. Conditions similar to those in Manitoba obtained in the Kenora and Rainy river districts, but over the remainder of Ontario the month was considerably warmer than usual, the excess over the normal mean ranging from 3° to 11° in the region lying between the Ottawa river and the Great Lakes. In Quebec and the Maritime Provinces, generally, mean temperatures were somewhat higher than normal. In the Mackenzie river basin and the Yukon extreme cold prevailed.

**Precipitation.**—Precipitation was much lighter than normal in British Columbia and the Maritime Provinces, but elsewhere in Canada was unusually heavy—at some places in the Prairie Provinces amounting to four times the normal amount. On the prairie the precipitation was wholly snow, but in Ontario and the Maritime Provinces it was partly rain. In southern Ontario the precipitation was for the most part rain.

**Winds and Bright Sunshine.**—High winds and gales occurred frequently from the Great Lakes to the Gulf. The prevailing direction of the wind was southwest in Ontario and Quebec and northwest in the Maritime Provinces. The amount of bright sunshine was in excess of normal from the Pacific coast to the Rocky Mountains; thence to the Atlantic it was less than normal, considerably so in Saskatchewan.

#### FEBRUARY.

**Temperature.**—In February the temperature remained below the normal in British Columbia, but to a much less marked extent, while the Prairie Provinces experienced a temperature for the most part higher than the normal. From the Lake of the Woods to the Atlantic, negative departures from the normal obtained generally, the greatest exceeding 8° and occurring in Quebec. In the Prairie Provinces the change from extreme cold to mild weather occurred very abruptly on the afternoon of the 13th.

**Precipitation.**—The distribution of precipitation was very irregular during this month, especially in British Columbia and the Prairie Provinces, some districts reporting a large excess and others an equally large defect. In Ontario, Quebec and the Maritime Provinces, however, there was more uniformity, nearly all districts reporting a deficiency.

**Winds and Bright Sunshine.**—Over the greater part of the Dominion the prevailing direction of the wind was westerly. Gales and high winds were less frequent in Ontario than was the case in January, but occurred on several days in the Maritime Provinces and Quebec. The duration of bright sunshine was considerably above normal in British Columbia, northern Saskatchewan, eastern Manitoba, and was either normal or slightly less elsewhere.

#### MARCH.

**Temperature.**—In the basins of the Athabasca, Peace and Mackenzie rivers, over the greater part of Manitoba, and from the Lake of the Woods to the Atlantic, the mean temperature was less than the normal by from 3° to 12°, the greatest negative departures occurring in the vicinity of Fort MacMurray and of Abitibi Post, respectively. In Saskatchewan, Alberta and British Columbia, there were large areas with temperatures from 3° to 6° higher than normal. These areas comprised the basins of the North and South Saskatchewan rivers with their

## WEATHER OF CANADA DURING 1916.

tributaries and head waters, and the basin of the Fraser river from its headwaters to the confluence with the Thompson. The temperature in the lower Fraser valley, as well as on Vancouver Island, differed little from normal.

**Precipitation.**—Precipitation was much greater than the normal from the Pacific coast to the Red river of Manitoba, and to a smaller degree in Ontario and Nova Scotia. In Quebec and New Brunswick there was a deficiency.

**Winds and Bright Sunshine.**—The prevailing directions of the wind were northeast and northwest. High winds and gales were prevalent in Quebec and the Maritime Provinces, while in Ontario gales occurred on one to four days and high winds frequently. In British Columbia the duration of bright sunshine was markedly in defect of normal, while in Ontario and Quebec it was still more markedly in excess.

## APRIL.

**Temperature.**—In the thickly populated regions of Canada the mean temperature was for the most part normal or a little lower, but the scattered stations in the thinly settled regions of the north reported temperatures which indicated that the higher latitudes had experienced an excess of  $3^{\circ}$  to  $8^{\circ}$  or more.

**Precipitation.**—Precipitation was generally well in excess of normal in British Columbia, Alberta, Saskatchewan, Ontario and Prince Edward Island, but was deficient elsewhere.

**Winds and Bright Sunshine.**—High winds prevailed for an average of ten days throughout the Dominion, and gales for three days. Nearly all stations in Canada reported bright sunshine somewhat less than normal.

## MAY.

**Temperature.**—In the basin of the Mackenzie river, in the Yukon and on the north shore of the Gulf, there was a positive departure from normal temperature (at Fort Norman on the Mackenzie of  $10^{\circ}$ ), but elsewhere in Canada the temperature was below the normal, by from  $2^{\circ}$  to  $6^{\circ}$  in British Columbia and the Prairie Provinces and the region north of Lake Superior, and by  $1^{\circ}$  to  $3^{\circ}$  in the remaining portion.

**Precipitation.**—Except in the West Kootenay and the Illecillewaet-North Columbia districts there was a deficiency of precipitation in British Columbia, amounting to from one quarter to one half of the normal amount. Over the greater part of Manitoba, the basin of the North Saskatchewan river in Alberta, southern Algoma, Timiskaming, the counties of the lower St. Lawrence and the Maritime Provinces, there was also a deficiency, which in the majority of the districts enumerated amounted to about thirty p.c. of the normal. In Manitoba, however, the deficiency was small. In the basin of the North Saskatchewan from Battleford to the confluence of the branches, the precipitation was very heavy. In Ontario from the Georgian bay eastward and southward, and in Quebec except in the counties of the Lower St. Lawrence and Gulf, there was an excess over the normal precipitation, which in some districts was doubled.

**Winds and Bright Sunshine.**—The prevailing direction of the wind in British Columbia was southeasterly or easterly, with high winds or gales on ten days. From the Rocky Mountains to Port Arthur the general direction was northwest, with gales on two days and strong winds on ten. Elsewhere the general direction was more variable with locality, but there was a dominating westerly component in the best agricultural districts. From Port Arthur to the Atlantic, gales or strong winds occurred on fifteen days, except in Quebec, where gales occurred on six days and strong winds on fifteen. In Saskatchewan, Manitoba, Ontario and Quebec, the duration of bright sunshine was in defect of normal by about forty hours, while on Vancouver Island and in southern British Columbia there was a small excess.

## JUNE.

**Temperature.**—Nowhere except in southern Ontario did the mean temperature differ much from normal. In the peninsula between the Great Lakes and in the eastern counties the deficiency amounted generally to about  $6^{\circ}$ , with a range between  $1^{\circ}$  and  $10^{\circ}$ . In the areas west of Port Arthur under cultivation the temperature was either normal or from  $1^{\circ}$  to  $3^{\circ}$  below. In the basins of the Mackenzie river and the Upper Fraser river there was a slight excess over normal, as was the case also in the region of Lake St. John, the basin of the Peribonka, and the district of Lake Mistassini, in Quebec.



## CLIMATE AND METEOROLOGY.

**Precipitation.**—The rainfall of June, which is a critical factor in the production of wheat in the Prairie Provinces, was uniformly sufficient in those provinces and in many districts was heavy. In few districts were there less than two inches of rain and in many more than four inches fell. There were frequent thunderstorms and some hail. In the Fraser river and coast districts of British Columbia the rainfall was less than normal, but in the interior valleys there was a general excess amounting to from twenty to forty p.c. of the normal. In Ontario and the Maritime Provinces, and Quebec, except the northern districts, the rainfall was also in excess. The excess in many parts of Ontario was equivalent to fifty p.c. of the normal June rainfall, and in the Maritime Provinces except Prince Edward Island to thirty p.c.

**Winds and Bright Sunshine.**—Gales occurred on two days in Alberta and Saskatchewan and none in Manitoba, but strong winds occurred in these three provinces on ten days. In Ontario strong winds prevailed on six days, while one or two gales occurred locally. In Quebec there were strong winds on thirteen days and gales on from one to six. In the Maritime Provinces there were local gales and strong winds, generally, on six days. The duration of bright sunshine did not differ much from the normal from the Pacific to the second principal meridian, but thence eastward there was a very considerable deficiency. The prevailing direction of the wind was northwest in the Prairie Provinces, variable in Ontario and Quebec, and southwest in the Maritime Provinces.

## JULY.

**Temperature.**—From northeastern Alberta to the bay of Fundy the mean temperature was well above the normal by from  $2^{\circ}$  to  $9^{\circ}$ . In Nova Scotia and Prince Edward Island the negative departures were small, but in British Columbia they ranged from  $2^{\circ}$  to  $7^{\circ}$ . In Ontario this was one of the warmest months on record.

**Precipitation.**—The rainfall was very heavy from the Pacific to central Manitoba. In many districts the normal precipitation was doubled or tripled. In the basin of the Red river in Manitoba there was a small deficiency, and in the region of Ontario lying between the Great Lakes and the Ottawa river there was a general and very large deficiency. Along the middle St. Lawrence nearly the normal amount fell, but elsewhere in Quebec only two thirds, or less, of the normal rainfall was recorded. New Brunswick and Prince Edward Island reported an excess of about one third and Nova Scotia a small deficiency.

**Winds and Bright Sunshine.**—High winds and local gales in the Prairie Provinces caused some mechanical injury to the grain. No gales occurred in Ontario, but were recorded on from one to three days in Quebec and the Maritime Provinces with strong winds on ten days. In Alberta the northwesterly winds were dominant, but in Saskatchewan, Manitoba, Quebec and the Maritime Provinces, the greatest mileage was from the southwest. In Ontario the direction of greatest mileage varied considerably with the district. In southwestern British Columbia there was a very marked deficiency of bright sunshine and a less marked but still large excess in Ontario. In the Prairie Provinces there was a general but small excess.

## AUGUST.

**Temperature.**—In Manitoba the mean temperature exceeded the normal by  $2^{\circ}$  to  $5^{\circ}$  and in Ontario from  $3^{\circ}$  to  $8^{\circ}$ , except in the Thunder bay district where the positive differences were smaller or vanished. In that region of Quebec in which lie Lakes Abitibi, Mistassini, and St. John, the normal was exceeded by more than  $6^{\circ}$  and over the remainder of the province by from  $3^{\circ}$  to  $6^{\circ}$ . In the Maritime Provinces the differences from normal ranged between  $2^{\circ}$  and  $4^{\circ}$ , the negative values occurring in Nova Scotia. In a small portion of southeastern Saskatchewan, and in Alberta about the headwaters of the Red Deer and of the North Saskatchewan, the differences were similar to those obtaining in Manitoba. In British Columbia there were positive differences in the valleys of the Lower Fraser, the Similkameen, Okanagan (southern portion), part of the valley of the South Thompson, and the Illecillewaet. Over the remainder of the province the temperature ranged from normal to  $3^{\circ}$  below, as far north as the Great Forks of the Fraser, near Prince George, beyond which to Atlin Lake and the Liard river there was a small excess. In the region of Athabaska lake and Fort Vermilion there was a negative difference of  $4^{\circ}$  which diminished eastwards till it vanished at Fort Churchill.

## WEATHER OF CANADA DURING 1916.

**Precipitation.**—In most parts of the Dominion there was a very considerable deficiency of rainfall, which in British Columbia amounted from twenty p.e. to eighty p.e. of the normal August total; in the Dauphin district of Manitoba to sixty p.e. and from Algoma to the Atlantic to from thirty to seventy p.e. In Alberta the rainfall was heavy, except on the Athabaska and Peace river basins. In the basin of the North Saskatchewan, in the province of the same name, the normal precipitation was more than doubled. Elsewhere in Saskatchewan there was a deficiency. In southern Manitoba the rainfall was either normal or somewhat less. Thunderstorms occurred frequently in the Prairie Provinces and were attended locally by severe hailstorms which did severe damage in limited areas.

**Winds and Bright Sunshine.**—Strong winds which attained to the force of a gale on from one to four days did some mechanical injury to the grain crops. There were no gales in Ontario, but in Quebec and the Maritime Provinces one to six were recorded. The prevailing directions of the wind, were northwest and southwest, which were equally prevalent in western Canada while in the Maritime Provinces the southwest predominated. There was a considerable excess of bright sunshine in all parts of the Dominion, except in Alberta and northern Saskatchewan.

## SEPTEMBER.

**Temperature.**—In the populated areas of Canada the differences from normal temperature were small, except in the district of Kenora, where there was a negative difference of 4°. In the region of Lake Athabaska and near the headwaters of the Peace river there was a difference above normal of 4°.

**Precipitation.**—The rainfall remained below normal by a considerable amount in British Columbia, most of southern Ontario, New Brunswick, Nova Scotia, Prince Edward Island and the district of the Forks of the Saskatchewan river in Saskatchewan. In portions of Manitoba there was also a deficiency, but to a lesser extent. About the fifteenth and towards the close of the month, there were light local snowfalls in the Prairie Provinces.

**Winds and Bright Sunshine.**—In the western provinces the general direction of the wind was northwest, as it was also in the Lake Superior districts of Ontario, but elsewhere from Ontario to the Maritime Provinces southwest winds largely predominated, with strong winds on eleven days and gales locally on from one to two days in Ontario and one to seven days in the Maritime Provinces. Victoria, in British Columbia, reported a large excess of bright sunshine, while Haileybury, in northern Ontario, registered a still larger defect, but other sunshine stations reported much smaller differences from normal.

## OCTOBER.

**Temperature.**—From Lake Superior to the Atlantic ocean and over the greater part of British Columbia, the differences from normal temperature were small, but in the Prairie Provinces and the Lake Superior districts of Ontario there were negative departures of from 3° to 6°.

**Precipitation.**—In British Columbia the precipitation remained largely in defect of normal, but over the remainder of the Dominion, generally, there was an excess, which was great in many parts of the Prairie Provinces, some districts receiving three times the normal amount. The precipitation was partly rain and partly snow.

**Winds and Bright Sunshine.**—Strong winds and gales seldom occurred in British Columbia, Alberta and Saskatchewan, but were of frequent occurrence from Manitoba to the Maritime Provinces, the strongest winds being northwest or southwest in most instances. In British Columbia and those regions of Ontario and Quebec which lie near the confluence of the Ottawa and St. Lawrence rivers, there was a considerable excess of bright sunshine, while in northern Ontario, Manitoba, Saskatchewan and northern Alberta there was a considerable deficiency.

## NOVEMBER.

**Temperature.**—In British Columbia the mean temperature was considerably below normal, except in the regions north of the Great Forks of the Fraser. The negative differences obtained in northern Ontario, also, increasing northward on the James bay slope, while only on the small strip bordering Lakes Erie and Ontario were the temperatures in that province either normal or higher. In

## CLIMATE AND METEOROLOGY.

Alberta and Saskatchewan and Manitoba the excess over normal temperature was considerable, especially in the region north of Prince Albert. In the Maritime Provinces and the settled regions of Quebec there was a general but not large defect.

**Precipitation.**—Over the greatest part of the Dominion the precipitation was considerably less than normal; in a few sections it was only slightly less than normal, and only in western and northwestern Quebec was there any considerable excess.

**Winds and Bright Sunshine.**—In Quebec and eastern Ontario the prevailing direction of the wind was southwest, while over the remainder of the Dominion west and northwest largely predominated, except in British Columbia where the greatest mileage was easterly. In British Columbia there were gales on six days and strong winds on three days. In the Prairie Provinces there were gales on one or two days and strong winds on eight days. In Ontario there were gales on one to four days and strong winds on ten days. In Quebec and the Maritime Provinces there were gales on seven days and strong winds on eleven days. In British Columbia, northern Alberta, Manitoba, southern and eastern Ontario, there was a large excess of bright sunshine, especially large in British Columbia. In all other parts of the country there was also an excess, but very small.

## DECEMBER.

**Temperature.**—The mean temperature of the month was decidedly below normal from Lake Superior westward to the Pacific coast, negative departures of  $12^{\circ}$  to  $15^{\circ}$  being recorded in northern Alberta and the northern interior districts of British Columbia. In Ontario there was also a negative departure but small, while from the Ottawa valley eastward departures were positive and increased to  $6^{\circ}$  on the eastern shores of New Brunswick and Cape Breton.

**Precipitation.**—Precipitation was considerably above normal in the Maritime Provinces and eastern Quebec, while in other parts of the Dominion with some local exceptions, the normal amount was not recorded.

**Winds and Bright Sunshine.**—There was a heavy westerly gale in Ontario on the fifth and sixth, while in the Maritime Provinces and Quebec there was an unusually heavy wind movement. In southern Ontario and western Quebec, Vancouver Island, southern Alberta and Manitoba the duration of bright sunshine was from ten to forty hours in excess of normal, while in the Maritime Provinces there were equally large deficiencies.

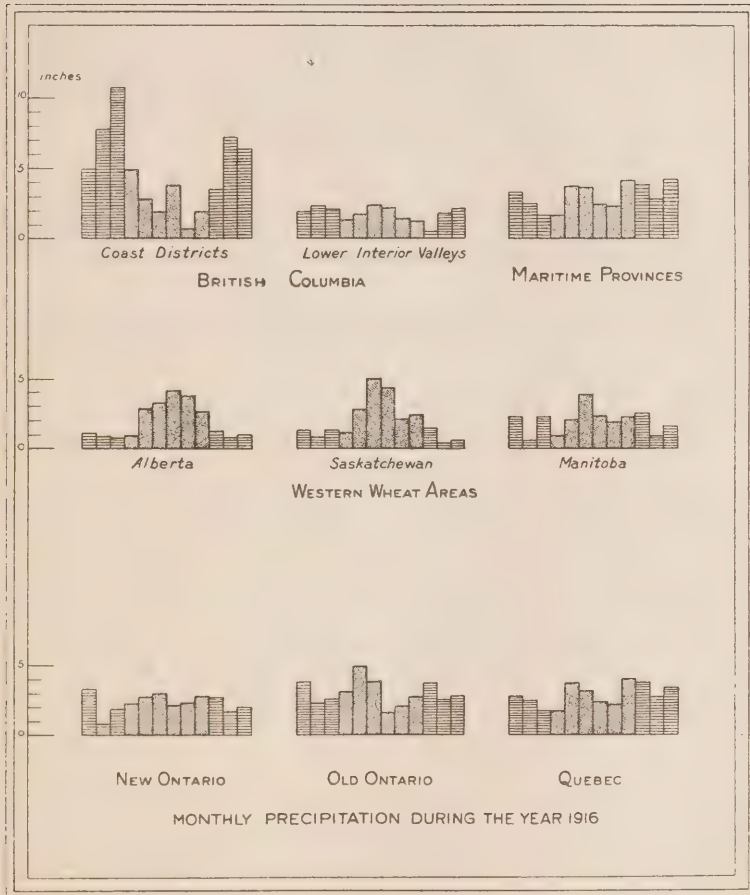
## TEMPERATURE AND PRECIPITATION.

**TEMPERATURE.**—At the stations of the Dominion Meteorological Service the highest and lowest temperature in each 24 hours, termed respectively the maximum and the minimum, are recorded by self-registering thermometers. For any month the sum of the daily maxima, divided by the number of days of the month, is the mean maximum temperature of that month. The mean minimum temperature is obtained in a similar manner. The half sum of the mean maximum and the mean minimum is called the mean temperature. The averages of these results for any particular month over a period of years are the average means for that period and are used as normal means or temperatures of reference. The highest and lowest temperatures recorded during the whole period of years are termed the extreme maximum and extreme minimum respectively. These latter figures are of course to be regarded as extraordinary, the more unlikely to recur the longer the period from which they have been derived. Temperatures below zero have the minus sign (—) prefixed.

**PRECIPITATION.**—Under the collective term "precipitation" is included all moisture which has been precipitated from the atmosphere upon the earth: rain, snow, hail, sleet, etc. The amount of moisture is conveniently measured by determining the depth to which it has accumulated upon an impervious surface, and is always expressed in inches of depth. The total depth of snow is tabulated separately, but is added to the depth of rain after division by ten. An extended series of experiments in melting and measuring snow having been collated, the rule was deduced that a given fall of snow will, in melting, diminish on the average to one-tenth of its original depth. This rule is used in practice. All solid forms of precipitation other than snow are included in the tables as rain.



## PRECIPITATION.



NOTE.—The twelve rectangles in each of the figures represent, respectively, the precipitation of the twelve months of the year, beginning in each case with January. The stippled rectangles represent the growing season.



## CLIMATE AND METEOROLOGY.

## 1.—Temperature of the year 1916 at Representative Stations, compared with Normal Annual Averages for the period 1888 to 1907.

Station.	Degrees of temperature, F.						Hours of sunshine.	
	Mean winter.	Mean summer.	Lowest in year.	Highest in year.	Mean annual.	Normal annual (1888-1907).	1916.	Normal annual (1888-1907).
British Columbia—								
Victoria.....	38.3	57.7	15	86	57.5	50.3	2,025	1,822
Vancouver.....	37.8	61.2	6	83	48.0	49.1	1,699	1,815
Kamloops.....	21.7	65.7	—28	95	42.9	47.7	2,027	1,868
Alberta—								
Calgary.....	17.3	59.7	—41	87	37.4	37.4	—	—
Edmonton.....	12.2	58.2	—45	81	34.8	36.7	2,066	2,081
Saskatchewan—								
Battleford.....	7.2	61.1	—61	89	33.3	34.4	—	2,101
Prince Albert.....	8.0	60.9	—58	86	40.4	32.1	—	—
Qu'Appelle.....	7.9	61.1	—46	89	40.6	34.5	2,307	—
Manitoba—								
Minnedosa.....	6.1	61.5	—40	91	32.2	34.1	—	—
Winnipeg.....	6.2	65.1	—41	95	33.7	34.9	2,159	2,178
Ontario—								
Port Arthur.....	13.2	62.0	—27	99	35.7	35.7	—	—
White River.....	5.9	59.0	—51	95	30.6	32.3	—	—
Parry Sound.....	21.4	67.7	—24	98	42.2	41.3	—	—
Southampton.....	25.5	65.8	—19	91	43.6	43.8	—	—
Toronto.....	27.8	69.4	—9	100	46.4	45.5	2,081	2,048
Kingston.....	24.3	67.2	—16	88	44.2	43.7	2,009	1,989
Stonecliff.....	16.5	66.2	—30	98	39.4	38.5	—	—
Ottawa.....	19.3	68.2	—18	97	41.9	43.0	2,089	1,874
Quebec—								
Montreal.....	20.6	68.8	—18	92	42.9	42.3	1,895	1,805
Quebec.....	17.0	66.1	—24	92	39.5	38.7	1,802	1,762
Sherbrooke.....	18.9	66.0	—20	89	40.7	—	1,772	1,843
Father Point.....	17.8	57.5	—17	80	36.3	35.1	—	—
New Brunswick—								
Chatham.....	20.7	65.2	—19	96	41.1	40.3	—	—
Fredericton.....	26.0	64.4	—20	94	43.3	40.5	1,973	1,978
St. John.....	24.3	58.6	—12	80	40.8	41.6	—	—
Nova Scotia—								
Yarmouth.....	29.4	58.1	—10	79	42.7	40.2	—	—
Halifax.....	27.8	62.6	—14	89	43.7	44.3	—	—
Sydney.....	27.2	61.5	—25	88	42.7	42.4	—	—
Prince Edward Island—								
Charlottetown.....	23.7	63.6	—16	88	41.7	40.2	1,667	1,896

## PRECIPITATION.

2.—Precipitation of the year 1916 at Representative Stations, compared with Normal Annual Averages for the period 1888 to 1907.

Precipitation in inches.

Station.	1916.			Normal (1888-1907).		
	Rain.	Snow.	Total.	Rain.	Snow.	Total.
British Columbia—						
Victoria.....	21.64	78.2	29.46	31.41	11.6	32.57
Vancouver.....	48.03	80.5	56.08	57.88	23.2	60.20
Kamloops.....	6.57	32.7	9.84	8.00	26.2	10.62
Alberta—						
Calgary.....	9.37	46.3	14.00	11.70	46.0	16.30
Edmonton.....	15.33	57.1	21.04	14.18	40.2	18.20
Saskatchewan—						
Battleford.....	15.46	22.5	17.71	11.05	27.4	13.79
Prince Albert.....	15.89	36.3	19.52	11.62	49.8	16.60
Qu'Appelle.....	18.50	80.4	26.54	13.44	54.0	18.84
Manitoba—						
Minnedosa.....	14.36	61.1	20.47	12.79	45.7	17.36
Winnipeg.....	15.54	86.5	24.19	15.62	51.9	20.81
Ontario—						
Port Arthur.....	24.21	51.4	29.35	19.01	44.5	23.46
White River.....	16.48	116.2	28.10	17.36	93.5	26.71
Parry Sound.....	33.15	150.0	48.15	29.38	115.6	40.94
Southampton.....	30.25	131.2	43.37	21.64	116.0	33.24
Toronto.....	25.24	67.3	31.97	25.28	61.0	31.38
Kingston.....	31.54	58.8	37.42	24.01	74.8	31.49
Stonecliff.....	24.07	67.4	30.81	21.69	82.6	29.95
Ottawa.....	27.13	119.6	39.09	24.70	87.0	33.40
Quebec—						
Montreal.....	28.98	98.3	38.81	29.37	122.7	41.64
Quebec.....	33.63	91.0	42.73	27.17	132.9	40.46
Sherbrooke.....	26.83	111.0	37.93	—	—	—
Father Point.....	21.25	117.1	32.96	23.21	109.6	34.17
New Brunswick—						
Chatham.....	31.11	94.9	40.60	27.65	119.9	39.64
Fredericton.....	26.20	95.9	35.79	33.73	104.6	44.19
St. John.....	28.17	99.9	38.16	36.68	84.3	45.11
Nova Scotia—						
Yarmouth.....	31.27	117.2	42.99	42.46	84.2	50.88
Halifax.....	36.37	91.9	45.56	49.43	76.7	57.10
Sydney.....	34.34	108.5	45.19	41.10	92.8	50.38
Prince Edward Island—						
Charlottetown.....	25.03	92.4	34.27	29.97	101.8	40.15

## VI.—PRODUCTION.

In this section are included the statistics of agriculture, forestry, fisheries, minerals and manufactures.

### AGRICULTURE.

**Correction of Estimates by Census Returns.**—Previous estimates of the areas and yields of the field crops of Canada for the years 1915 and 1916 have been corrected to agree with the finally ascertained results of the Census of the Prairie Provinces, taken in June, 1916. These results indicate that the estimates of areas sown to the principal grain crops for the harvest of 1915, as compiled from the reports of correspondents, were considerably below the census returns as compiled from the individual schedules filled up for every farm. Thus, in 1915, the census returns showed, for the three Prairie Provinces, 13,867,715 acres of wheat instead of 11,744,700; 6,480,681 acres of oats instead of 6,290,000 and 1,171,082 acres of barley instead of 962,000. For flax the area was 457,759 acres instead of 801,000 acres. Similarly, in 1916, the census returns are for wheat 14,362,809 acres instead of 9,068,200; for oats 7,359,487 acres instead of 5,673,000; for barley 1,391,296 acres instead of 898,500 and for flax 652,781 acres instead of 705,000 acres; the area in the case of flax being less for both years. The increases shown were largely in the more recently settled districts where the system of reporting by correspondents is necessarily less fully developed.

**Season of 1916.**—The prospects for a favourable grain harvest were good up to the end of July, and from the beginning of the crop-reporting season in May up to that time, the monthly figures representing the condition of spring wheat in Saskatchewan and Alberta were over 90 p.c. of the standard, whilst in Manitoba they were above 90 for May and June and 84 for July. But during August a severe outbreak of rust spread rapidly into Canada from the northern States across the border. The Census and Statistics Office crop correspondents reported on August 31 that the grain crops in Manitoba and Saskatchewan had been so seriously affected by rust and hot winds during August that large areas sown would either fail to produce any crop at all, or would have to be cut green, whilst the yield of grain from producing areas would be very low, both in quantity and grade. These statements were fully borne out by the numerical expression given to the facts, and for Manitoba, where the attacks of rust were of the greatest and most widespread severity, the average condition of spring wheat on August 31 was down to 37 p.c. of the standard—the lowest percentage on record since the crop-reporting system was started in 1908,—and in Saskatchewan and Alberta the averages were 61 and 78, respectively. The consequence was that the average yield per acre of spring wheat in Manitoba was only 10.8 bushels, as compared with  $24\frac{3}{4}$  bushels in 1915; in Saskatchewan the yield per acre was  $16\frac{1}{3}$  bushels against 25 bushels and in Alberta 25 bushels against 31 bushels.

**Average Yields per Acre of Grain Crops.**—For the whole of the Dominion, the average yields per acre of the principal grain crops for 1916 were, in bushels, as follows, the yields of 1915 and 1914 being placed within brackets for comparison: Fall wheat,  $21\frac{1}{2}$  ( $28\frac{1}{2}$  and  $21\frac{1}{2}$ );

## AGRICULTURE.

spring wheat,  $16\frac{3}{4}$  (26 and 15); all wheat, 17 (26 and  $15\frac{1}{2}$ ); oats,  $37\frac{1}{4}$  ( $40\frac{1}{4}$  and 31); barley,  $23\frac{3}{4}$  ( $31\frac{1}{2}$  and  $24\frac{1}{4}$ ); rye,  $19\frac{1}{4}$  ( $20\frac{1}{2}$  and 18); peas,  $14\frac{1}{2}$  ( $17\frac{3}{4}$  and  $17\frac{1}{2}$ ); beans,  $12\frac{3}{4}$  ( $16\frac{3}{4}$  and  $18\frac{1}{4}$ ); buckwheat,  $17\frac{1}{2}$  (23 and  $24\frac{1}{4}$ ); mixed grains,  $25\frac{3}{4}$  ( $37\frac{1}{2}$  and  $35\frac{1}{4}$ ); flaxseed,  $12\frac{1}{2}$  (13 and  $6\frac{1}{2}$ ); corn for husking,  $36\frac{1}{4}$  ( $56\frac{3}{4}$  and  $54\frac{1}{2}$ ). For wheat, oats, rye and flaxseed these average yields, although inferior to the excellent returns of 1915, were higher than those of 1914, which was a year of low yields due to drought. For barley, peas, beans, buckwheat, mixed grains and corn for husking, the average yields were lower than in either of the two previous years.

**Total Areas and Yields of Grain Crops.**—The total harvested areas and the total production of the principal grain crops in Canada for 1915 and 1916, as corrected by the census returns of 1916, are estimated therefore as follows: Wheat 262,781,000 bushels from 15,369,709 acres, compared with 393,542,600 bushels from 15,109,415 acres in 1915; oats 410,211,000 bushels from 10,996,487 acres, compared with 464,954,400 bushels from 11,555,681 acres and barley 42,770,000 bushels from 1,802,996 acres, compared with 54,017,100 bushels from 1,718,432 acres. For other crops the estimated total production in 1916 was as follows: rye 2,876,400 bushels from 148,404 acres; flaxseed 8,259,800 bushels from 657,781 acres; peas 2,218,100 bushels from 151,790 acres; beans 412,600 bushels from 32,500 acres; buckwheat 5,976,000 bushels from 341,500 acres; mixed grains 10,584,800 bushels from 412,670 acres and corn for husking 6,282,000 bushels from 173,000 acres.

**Root and Fodder Crops.**—The yield of hay and clover in 1916 was the record one of 14,527,000 tons, an average of 1.86 ton per acre, which is the highest yield on record for this crop in Canada. The average value per ton was \$11.60, as compared with \$14.37 in 1915. Potatoes were again upon the whole a poor crop, this result being due to unfavourable conditions in Quebec and Ontario, where the average yield per acre was for Quebec, 131 bushels, as compared with 149.66 bushels in 1915, and for Ontario, 61 bushels, as compared with 92.66 bushels. The total estimated production of potatoes in Canada was 63,297,000 bushels, as compared with 60,353,000 bushels in 1915 and 85,672,000 bushels, the record crop of 1914. In the Maritime Provinces the potato yield was good, being 206 bushels per acre for Prince Edward Island, 201 bushels per acre for Nova Scotia and 192 bushels per acre for New Brunswick. The average price per bushel for potatoes was 81 cents for Canada, 52 cents for Prince Edward Island, 69 cents for Nova Scotia, 84 cents for New Brunswick, 97 cents for Quebec and \$1.28 for Ontario. Fair yields of potatoes were recorded for the Prairie Provinces, the averages being between 147 and 164 bushels, with prices of 61 and 62 cents per bushel in Manitoba and Saskatchewan and 53 cents in Alberta. In British Columbia the average yield per acre was 189 bushels and the price 70 cents per bushel. The total yield of turnips and other roots was placed at 36,921,100 bushels, as compared with 60,175,000 bushels in 1915. Of fodder corn, the total yield was 1,907,800 tons, against 3,382,770 tons in 1915. Alfalfa produced 286,750 tons, compared with 260,970 tons in 1915, and sugar beets 71,000 tons against 141,000 tons.



## PRODUCTION.

**Quality of Grain Crops.**—The quality of the grain crops of 1916, as determined by the average weight in lb. per measured bushel, was as follows: Fall wheat, 59.52 lb.; spring wheat, 56.51 lb.; all wheat, 57.10 lb.; oats, 33.86 lb.; barley, 45.66 lb.; rye, 54.95 lb.; peas, 59.88 lb.; beans, 60 lb.; buckwheat, 46.35 lb.; mixed grains, 43.13 lb.; flax, 55 lb., and corn for husking 56.51 lb. For wheat and oats these weights per measured bushel are lower than in any previous year on record.

**Average Values per Bushel of Grain Crops.**—Offsetting the low yields and grades was the increase in the average prices of grain received by farmers in 1916. These prices are considerably higher than those of 1915, and are even higher than the prices which ruled in 1914 after the outbreak of the war. The average prices per bushel received by farmers for the grain products of 1916 work out as follows: Fall wheat, \$1.54 against 90 cents in 1915; spring wheat, \$1.29 against 91 cents; all wheat, \$1.31 against 91 cents; oats, 51 cents against 36 cents; barley, 82 cents against 52 cents; rye, \$1.11 against 77 cents; flaxseed, \$2.04 against \$1.51; peas, \$2.22 against \$1.65; beans, \$5.40 against \$3.05; buckwheat, \$1.07 against 75 cents; mixed grains, 88 cents against 57 cents and corn for husking, \$1.07 against 71 cents.

**Total Values of Field Crops.**—The total farm values of the principal grain crops of 1916 are estimated as follows, the values of wheat, oats, barley, rye and flaxseed being based upon the final returns of the Census of 1916, and the corresponding values of 1915 are given in brackets for wheat, oats and barley: Wheat, \$344,096,400 (\$356,816,900); oats, \$210,957,500 (\$171,099,100); barley, \$35,024,000 (\$27,985,800); rye, \$3,196,000; peas, \$4,919,000; beans, \$2,228,000; buckwheat, \$6,375,000; mixed grains, \$9,300,900; flaxseed, \$16,889,900 and corn for husking, \$6,747,000. Including the root and fodder crops, the total value of the field crops of Canada in 1916 is estimated at \$886,494,900, as compared with \$825,370,600, the revised estimate of 1915. The totals comprise grain crops, \$639,733,700, compared with \$601,093,300 in 1915; potatoes and sugar beets \$51,422,300, compared with \$37,235,300, and fodder crops, \$195,338,900, compared with \$187,042,000. The total of \$886,494,900 for 1916 is higher than in any previous year.

**Grain Harvest in the Prairie Provinces.**—In the three Prairie Provinces of Manitoba, Saskatchewan and Alberta, the production of wheat in 1916 was estimated at 242,314,000 bushels, as compared with 360,187,000 bushels in 1915; of oats at 313,916,000 bushels, compared with 279,692,000 bushels; of barley at 33,419,000 bushels, compared with 36,003,000 bushels; and of flax at 8,212,500 bushels, compared with 6,045,000 bushels. The estimated wheat production of 1916 in Manitoba was 29,667,000 bushels from 2,727,725 acres; in Saskatchewan 147,559,000 bushels from 9,032,109 acres and in Alberta 65,088,000 bushels from 2,604,975 acres.

**Field Crops of 1915 and 1916 by Provinces.**—Table 1 gives for Canada and the provinces the estimates of the area, yield, quality and value of the principal field crops in 1916, as compared with 1915. Table 2 shows the total acreage and estimated production of wheat, oats, barley and flaxseed in the three Prairie Provinces for the years 1915 and 1916, the areas being those of the Census of 1916. Table 3 shows

## AGRICULTURE.

for Canada and by provinces the total estimated areas and values of field crops for each of the years 1911 to 1916. For 1916 the total area under field crops is placed at 38,930,333 acres, as compared with 39,140,460 in 1915 and 33,436,675 in 1914.

I.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Aver- age price per bushel	Total value.
	acres.	bush.	bush.	lb.	\$	\$
<b>Canada—</b>						
Fall wheat.....1915	1,030,581	28.45	29,320,600	59.71	0.90	27,149,700
1916	818,264	21.50	17,590,000	59.52	1.54	27,118,300
Spring wheat.....1915	14,078,834	25.87	364,222,000	60.31	0.91	329,667,200
1916	14,551,445	16.85	245,191,000	56.51	1.29	316,978,100
All wheat.....1915	15,109,415	26.07	393,542,600	60.19	0.91	356,816,900
1916	15,369,709	17.10	262,781,000	57.10	1.31	344,096,400
Oats.....1915	11,555,681	40.24	464,954,400	36.61	0.36	171,009,100
1916	10,996,487	37.30	410,211,000	33.86	0.51	210,957,500
Barley.....1915	1,718,432	31.51	54,017,100	35.33	0.52	27,985,800
1916	1,802,996	23.72	42,770,000	45.66	0.82	35,024,000
Rye.....1915	121,677	20.43	2,486,200	56.32	0.77	1,921,900
1916	148,404	19.38	2,876,400	54.95	1.11	3,196,000
Peas.....1915	196,065	17.67	3,464,250	60.74	1.65	5,724,100
1916	151,790	14.50	2,218,100	59.88	2.22	4,919,000
Beans.....1915	43,310	16.70	723,400	59.61	3.05	2,206,800
1916	32,500	12.70	412,600	60.00	5.40	2,228,000
Buckwheat.....1915	343,800	22.88	7,865,900	48.02	0.75	5,913,000
1916	341,500	17.50	5,976,000	46.35	1.07	6,375,000
Mixed grains.....1915	467,001	37.51	17,517,600	44.98	0.57	10,062,300
1916	412,670	25.75	10,584,800	43.13	0.88	9,300,900
Flax.....1915	463,359	13.19	6,114,000	55.28	1.51	9,210,400
1916	657,781	12.56	8,259,800	54.99	2.04	16,889,900
Corn for husking..1915	253,300	56.72	14,368,000	56.32	0.71	10,243,000
1916	173,000	36.25	6,282,000	56.51	1.07	6,747,000
Potatoes.....1915	485,777	124.24	60,353,000	—	0.60	36,459,800
1916	472,992	133.82	63,297,000	—	0.81	50,982,300
Turnips, mangolds, etc.....1915	156,691	384.05	60,175,000	—	0.24	14,588,700
1916	141,839	264.24	36,921,100	—	0.39	14,329,000
		tons.	tons.		per ton.	
Hay and clover...1915	7,776,995	1.36	10,612,000	—	14.37	152,531,600
1916	7,821,257	1.86	14,527,000	—	11.60	168,547,900
Fodder corn.....1915	332,469	10.17	3,382,770	—	4.91	16,612,600
1916	293,058	6.65	1,907,800	—	4.92	9,396,000
Sugar beets.....1915	18,000	7.83	141,000	—	5.50	775,500
1916	15,000	4.75	71,000	—	6.20	440,000
Alfalfa.....1915	98,488	2.65	260,970	—	12.68	3,309,100
1916	99,350	2.91	286,750	—	10.69	3,066,000

## PRODUCTION.

## 1. Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Average price per bushel	Total value.
Prince Edward I.—	acres.	bush.	bush.	lb.	\$	\$
Spring wheat.....1915	34,400	19.00	653,600	59.05	1.08	705,800
1916	34,500	16.75	578,000	58.79	1.52	879,000
Oats.....1915	196,000	34.86	6,832,500	36.70	0.45	3,074,600
1916	199,000	37.25	7,413,000	36.93	0.61	4,522,000
Barley.....1915	3,700	28.88	106,800	48.83	0.71	75,800
1916	3,600	29.25	105,000	47.40	0.95	100,000
Peas.....1915	70	15.75	1,100	61.67	2.33	2,500
1916	60	22.25	1,300	59.71	2.19	2,800
Buckwheat.....1915	2,600	29.00	75,400	48.15	0.75	56,500
1916	2,500	27.25	68,000	49.10	1.00	68,000
Mixed grains.....1915	8,000	38.65	309,200	43.00	0.55	170,000
1916	8,000	41.25	330,000	47.60	0.75	248,000
Potatoes.....1915	31,000	114.78	3,558,000	—	0.46	1,637,000
1916	31,000	206.00	6,386,000	—	0.52	3,321,000
Turnips, man- golds, etc.....1915	7,900	449.46	3,551,000	—	0.26	923,000
1916	8,000	477.00	3,816,000	—	0.28	1,068,000
		tons.	tons.		per ton.	
Hay and clover...1915	198,000	1.77	351,000	—	12.18	4,275,000
1916	199,000	1.70	338,000	—	11.56	3,907,000
Fodder corn.....1915	260	13.00	3,400	—	3.00	10,200
1916	250	13.00	3,300	—	2.50	8,300
Nova Scotia—		bush.	bush.		per bush.	
Spring wheat.....1915	13,300	18.57	247,000	59.26	1.21	298,700
1916	13,400	19.50	261,000	59.95	1.70	444,000
Oats.....1915	112,000	31.14	3,487,700	34.18	0.59	2,057,700
1916	116,000	34.75	4,031,000	34.19	0.71	2,862,000
Barley.....1915	4,900	26.20	128,400	48.39	0.80	102,700
1916	4,700	26.25	123,000	48.58	0.99	122,000
Rye.....1915	300	15.00	4,500	56.00	1.08	4,900
1916	320	17.00	5,400	56.00	1.25	6,800
Peas.....1915	190	18.66	3,550	59.00	2.01	7,100
1916	180	17.75	3,200	59.80	2.73	8,700
Beans.....1915	840	17.50	14,700	59.83	3.87	56,800
1916	850	16.25	13,800	60.00	5.62	78,000
Buckwheat.....1915	10,200	21.72	221,500	47.45	0.72	159,500
1916	10,000	24.50	245,000	46.97	0.84	206,000

## AGRICULTURE.

## 1. Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield. per acre.	Total Yield	Weight per meas- ured bush.	Aver- age price per bush.	Total Value.
Nova Scotia—con.	acres	bush.	bush.	lb.	\$	\$
Mixed grains.....1915	4,100	34.16	140,000	43.05	0.71	99,400
1916	4,100	34.00	139,000	44.07	0.92	128,000
Potatoes.....1915	33,700	141.23	4,759,000	—	0.58	2,760,000
1916	34,500	201.00	6,935,000	—	0.69	4,785,000
Turnips, man- golds, etc.....1915	9,200	390.02	3,589,000	—	0.34	1,223,000
1916	9,000	404.00	3,636,000	—	0.42	1,527,000
Hay and clover...1915	538,000	tons. 1.78	tons. 958,000	—	per ton. 13.33	12,770,000
1916	553,000	1.80	995,000	—	12.25	12,189,000
Fodder corn.....1915	500	4.64	2,300	—	7.00	16,000
1916	500	8.75	4,400	—	2.50	11,000
Alfalfa.....1915	30	2.30	70	—	13.00	900
1916	30	5.00	150	—	15.00	2,300
New Brunswick—		bush.	bush.		per bush.	
Spring wheat....1915	14,000	19.09	267,000	59.69	1.26	335,000
1916	14,000	17.25	242,000	59.20	1.72	416,000
Oats.....1915	201,000	27.66	5,559,600	36.33	0.55	3,058,000
1916	198,000	30.50	6,039,000	35.49	0.68	4,107,000
Barley.....1915	2,100	22.96	48,000	48.85	0.85	40,800
1916	1,900	23.75	45,000	46.70	1.00	45,000
Peas.....1915	420	17.08	6,700	60.27	2.52	16,900
1916	400	16.50	6,600	60.21	2.46	16,200
Beans.....1915	270	21.37	5,700	60.71	4.03	23,000
1916	250	15.25	3,800	60.54	6.11	23,000
Buckwheat.....1915	58,000	22.68	1,315,000	47.51	0.73	960,000
1916	53,000	22.75	1,206,000	46.51	0.84	1,013,000
Mixed grains.....1915	900	31.50	28,400	45.80	0.71	20,000
1916	870	34.25	30,000	43.25	0.78	23,000
Potatoes.....1915	40,000	144.31	5,772,000	—	0.64	3,694,000
1916	39,000	192.00	7,488,000	—	0.84	6,290,000
Turnips, mangolds, etc.....1915	8,000	329.10	2,633,000	—	0.33	869,000
1916	7,700	411.00	3,165,000	—	0.45	1,424,000
Hay and clover...1915	569,000	tons. 1.39	tons. 791,000	—	per ton. 14.00	11,074,000
1916	574,000	1.48	850,000	—	11.27	9,563,000
Fodder corn.....1915	110	7.00	770	—	2.50	1,900
1916	100	10.00	1,000	—	4.00	4,000



## PRODUCTION.

## 1.—Area, Yield, Quality and Value of principal Field Crops in Canada 1915 and 1916—con.

Crops.	Area.	Yield. per acre.	Total yield.	Weight per meas- ured bush.	Aver- age price per bush.	Total value.
Quebec—	acres	bush.	bush.	lb.	\$	\$
Spring wheat.....1915	71,000	19.88	1,411,000	59.62	1.34	1,891,000
1916	64,000	15.00	960,000	57.71	1.86	1,786,000
Oats.....1915	1,400,000	30.13	42,182,000	36.92	0.55	23,200,000
1916	1,073,000	22.75	24,411,000	33.55	0.77	18,796,000
Barley.....1915	85,000	26.53	2,255,000	48.79	0.86	1,939,000
1916	72,800	20.00	1,456,000	46.67	1.15	1,674,000
Rye.....1915	8,700	16.71	145,000	55.90	1.12	162,000
1916	8,300	14.25	118,000	53.97	1.40	165,000
Peas.....1915	24,400	16.56	404,000	61.14	2.47	998,000
1916	21,600	14.00	302,000	59.95	3.22	972,000
Beans.....1915	4,700	21.89	103,000	59.38	3.17	327,000
1916	4,400	17.75	78,000	60.18	5.56	434,000
Buckwheat.....1915	104,000	24.69	2,568,000	48.17	0.84	2,157,000
1916	101,000	19.00	1,919,000	46.35	1.21	2,322,000
Mixed grains.....1915	101,000	29.67	2,997,000	45.44	0.73	2,188,000
1916	91,000	20.25	1,843,000	44.04	0.99	1,825,000
Flax.....1915	600	11.89	7,000	54.16	2.18	15,000
1916	500	10.50	5,300	54.50	2.50	13,300
Corn for husking..1915	16,300	31.17	508,000	56.85	1.12	569,000
1916	13,000	24.75	322,000	56.18	1.52	489,000
Potatoes.....1915	117,000	149.66	17,510,000	—	0.55	9,631,000
1916	112,000	131.00	14,672,000	—	0.97	14,232,000
Turnips, man- golds, etc.....1915	10,200	308.25	3,144,000	—	0.36	1,132,000
1916	10,000	265.00	2,650,000	—	0.48	1,272,000
Hay and clover...1915	2,922,000	tons. 1.26	tons. 3,682,000	—	per 15.89 ton.	58,507,000
1916	2,985,000	1.75	5,224,000	—	11.00	57,464,000
Fodder corn.....1915	34,000	8.61	293,000	—	6.39	1,872,000
1916	31,000	8.00	248,000	—	5.75	1,426,000
Alfalfa.....1915	2,860	2.84	8,100	—	11.78	95,000
1916	2,600	2.65	7,000	—	9.50	67,000

## AGRICULTURE.

## 1.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield per acre.	Total yield.	Weight per measured bush.	Average price per bush.	Total value.
<b>Ontario—</b>	acres.	bush.	bush.	lb.	\$	\$
Fall wheat.....1915	972,000	28.34	27,546,000	59.41	0.93	25,618,000
1916	774,800	21.25	16,465,000	59.42	1.55	25,521,000
Spring wheat....1915	121,000	22.36	2,706,000	59.41	0.96	2,598,000
1916	90,200	16.25	1,466,000	57.80	1.55	2,272,000
All wheat.....1915	1,093,000	27.67	30,252,000	59.41	0.93	28,216,000
1916	865,000	20.73	17,931,000	58.79	1.55	27,793,000
Oats.....1915	3,095,000	39.68	122,810,000	34.67	0.39	47,896,000
1916	1,991,000	25.50	50,771,000	30.30	0.64	32,493,000
Barley.....1915	449,000	34.23	15,369,000	47.83	0.56	8,607,000
1916	326,000	23.00	7,498,000	44.94	0.99	7,422,000
Rye.....1915	78,000	19.88	1,551,000	56.89	0.79	1,225,000
1916	69,000	17.50	1,208,000	55.20	1.17	1,413,000
Peas.....1915	169,000	17.79	3,007,000	59.86	1.54	4,631,000
1916	126,000	14.25	1,796,000	59.71	2.06	3,700,000
Beans.....1915	37,500	16.00	600,000	59.76	3.05	1,800,000
1916	27,000	11.75	317,000	59.72	5.34	1,693,000
Buckwheat.....1915	169,000	21.81	3,686,000	48.21	0.70	2,580,000
1916	175,000	14.50	2,538,000	45.80	1.09	2,766,000
Mixed grains....1915	345,000	39.91	13,769,000	44.76	0.54	7,435,000
1916	286,000	26.00	7,436,000	40.77	0.89	6,618,000
Flax.....1915	5,000	12.38	62,000	50.78	1.72	107,000
1916	4,500	9.25	42,000	57.17	2.78	117,000
Corn for husking..1915	237,000	58.48	13,860,000	55.75	0.69	9,674,000
1916	160,000	37.25	5,960,000	57.18	1.05	6,258,000
Potatoes.....1915	155,000	92.66	14,362,000	—	0.76	10,915,000
1916	133,000	61.00	8,113,000	—	1.28	10,385,000
Turnips, mangolds, etc.....1915	112,000	394.42	44,175,000	—	0.21	9,277,000
1916	97,000	211.00	20,467,000	—	0.36	7,368,000
		tons.	tons.		per ton.	
Hay and clover...1915	3,082,000	1.32	4,068,000	—	14.06	57,196,000
1916	3,059,000	2.00	6,118,000	—	11.90	72,804,000
Fodder corn.....1915	287,000	10.63	3,051,000	—	4.76	14,523,000
1916	248,000	6.50	1,612,000	—	4.80	7,738,000
Sugar beets.....1915	18,000	7.83	141,000	—	5.50	775,500
1916	15,000	4.75	71,000	—	6.20	440,000
Alfalfa.....1915	60,000	2.72	163,000	—	13.41	2,186,000
1916	56,000	3.00	168,000	—	9.75	1,638,000

## PRODUCTION.

## 1.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Avera- ge price per bushel	Total value.
	acres.	bush.	bush.	lb.	\$	\$
<b>Manitoba—</b>						
Fall wheat..... 1915	2,705	23.29	63,000	61.33	0.90	56,400
1916	3,829	15.93	61,000	—	1.40	85,400
Spring wheat.... 1915	2,797,719	24.76	69,274,000	61.18	0.90	62,606,500
1916	2,721,896	10.88	29,606,000	51.23	1.23	36,415,400
All wheat..... 1915	2,800,424	24.76	69,337,000	61.18	0.90	62,662,900
1916	2,725,725	10.88	29,667,000	—	1.23	36,500,800
Oats..... 1915	1,317,365	38.52	50,750,000	36.36	0.35	17,912,800
1916	1,443,599	33.55	48,439,000	33.05	0.49	23,735,100
Barley..... 1915	567,080	29.38	16,658,000	47.70	0.51	8,420,400
1916	687,503	19.97	13,729,000	42.78	0.80	10,983,200
Rye..... 1915	11,507	18.08	208,000	57.55	0.80	167,100
1916	30,050	18.54	557,000	56.50	1.06	590,400
Mixed grains.... 1915	659	33.38	22,000	43.00	0.48	10,600
1916	1,400	32.25	45,000	42.00	0.45	20,300
Flax..... 1915	14,505	8.27	120,000	55.00	1.61	193,300
1916	15,684	13.38	210,000	—	2.13	447,300
Potatoes..... 1915	29,878	85.85	2,565,000	—	0.64	1,636,100
1916	31,987	147.22	4,709,000	—	0.61	2,872,500
Turnips, mangolds, etc..... 1915	2,658	250.19	665,000	—	0.42	282,500
1916	3,118	145.00	452,000	—	0.49	221,500
		tons.	tons.		per ton.	
Hay and clover... 1915	88,478	1.02	90,000	—	9.43	848,500
1916	77,642	1.83	142,000	—	7.80	1,107,600
Fodder corn..... 1915	7,591	2.63	20,000	—	6.18	123,600
1916	9,830	2.75	27,000	—	4.67	126,000
Alfalfa..... 1915	3,671	1.36	5,000	—	12.20	61,000
1916	4,422	2.75	12,200	—	11.83	144,300
<b>Saskatchewan—</b>		bush.	bush.		per bush.	
Fall wheat..... 1915	9,968	26.28	262,000	—	0.92	240,900
1916	15,258	21.24	324,000	59.50	1.41	456,800
Spring wheat.... 1915	8,919,292	25.12	224,050,000	60.75	0.91	203,647,100
1916	9,016,851	16.33	147,235,000	55.18	1.28	188,460,800
All wheat..... 1915	8,929,260	25.12	224,312,000	—	0.91	203,888,000
1916	9,032,109	16.34	147,559,000	55.27	1.28	188,917,600

## AGRICULTURE.

1.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Aver- age price per bushel	Total value.
<b>Saskatchewan—con.</b>	acres.	bush.	bush.	lb.	\$	\$
Oats.....1915	3,336,245	43.48	145,066,000	37.48	0.32	46,125,700
1916	3,791,807	43.06	163,278,000	35.76	0.46	75,107,900
Barley.....1915	299,993	31.74	9,523,000	47.54	0.46	4,391,300
1916	367,207	27.06	9,916,000	46.02	0.77	7,635,300
Rye.....1915	7,207	28.17	203,000	55.17	0.64	130,500
1916	22,759	24.08	548,000	55.91	1.16	602,800
Peas.....1915	525	15.43	8,100	61.00	1.72	13,900
1916	1,600	32.50	52,000	60.00	2.25	117,000
Mixed grains.....1915	2,372	25.30	60,000	48.33	0.69	41,600
1916	14,150	35.00	495,300	40.00	0.46	227,800
Flax.....1915	395,254	13.30	5,255,000	55.89	1.51	7,928,400
1916	542,034	12.35	6,692,000	55.29	2.23	14,923,200
Potatoes.....1915	34,885	110.28	3,847,000	—	0.68	2,626,900
1916	46,989	155.76	7,319,000	—	0.62	4,537,800
Turnips, mangolds, etc.....1915	1,245	232.93	290,000	—	0.31	91,200
1916	1,621	252.93	410,000	—	0.57	233,700
		tons.	tons.		per ton.	
Hay and clover...1915	25,113	1.39	35,000	—	8.39	293,500
1916	25,154	2.35	59,000	—	5.85	345,200
Fodder corn.....1915	1,877	2.40	4,500	—	6.49	29,200
1916	2,253	2.60	5,900	—	6.00	35,400
Alfalfa.....1915	2,620	1.83	4,800	—	9.48	45,500
1916	3,086	2.85	8,800	—	10.25	90,200
<b>Alberta—</b>		bush.	bush.		per bush.	
Fall wheat.....1915	39,908	31.30	1,249,000	61.32	0.84	1,051,900
1916	18,177	30.20	549,000	61.19	1.39	763,100
Spring wheat....1915	2,098,123	31.12	65,289,000	61.57	0.88	57,273,700
1916	2,586,798	24.95	64,539,000	58.00	1.33	85,836,900
All wheat.....1915	2,138,031	31.12	66,538,000	61.52	0.88	58,325,600
1916	2,604,975	24.99	65,088,000	58.45	1.33	86,600,000
Oats.....1915	1,827,071	45.91	83,876,000	39.76	0.31	25,532,900
1916	2,124,081	48.11	102,199,000	37.36	0.46	47,011,500
Barley.....1915	304,009	32.31	9,822,000	49.57	0.44	4,340,400
1916	336,586	29.04	9,774,000	46.18	0.71	6,939,500



## PRODUCTION.

## 1.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—con.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Average price per bushel	Total value.
	acres.	bush.	bush.	lb.	\$	\$
<b>Alberta—con.</b>						
Rye.....1915	15,963	23.47	374,726	56.63	0.62	232,400
1916	17,975	24.49	440,000	53.71	0.95	418,000
Peas.....1915	160	20.00	3,200	62.00	2.09	6,700
1916	650	20.00	13,000	57.50	2.25	29,300
Mixed grains.....1915	2,370	37.13	88,000	47.20	0.52	45,700
1916	4,550	30.00	136,500	36.00	0.35	47,800
Flax.....1915	48,000	13.96	670,000	56.37	1.44	966,700
1916	95,063	13.79	1,316,500	55.91	1.06	1,389,100
Potatoes.....1915	28,314	142.12	4,024,000	—	0.44	1,779,800
1916	29,216	163.71	4,783,000	—	0.53	2,535,000
Turnips, mangolds, etc.....1915	1,688	235.19	397,000	—	0.29	116,000
1916	1,700	279.41	475,000	—	0.61	289,800
		tons.	tons.		per ton.	
Hay and clover...1915	187,404	1.31	246,000	—	7.60	1,870,600
1916	173,461	1.93	334,000	—	8.62	2,879,100
Fodder corn.....1915	701	3.42	2,400	—	6.13	14,700
1916	675	2.56	1,700	—	9.00	15,300
Alfalfa.....1915	17,207	2.15	37,000	—	7.64	282,700
1916	20,612	2.65	54,600	—	10.70	584,200
<b>British Columbia—</b>					per bush.	
		bush.	bush.			
Fall wheat.....1915	6,000	33.44	200,600	60.46	0.91	182,500
1916	6,200	30.75	191,000	61.00	1.53	292,000
Spring wheat.....1915	10,000	32.43	324,400	58.40	0.96	311,400
1916	9,800	31.00	304,000	59.55	1.54	468,000
All wheat.....1915	16,000	32.80	525,000	59.32	0.94	493,900
1916	16,000	30.94	495,000	60.16	1.54	760,000
Oats.....1915	71,000	61.84	4,390,600	36.28	0.49	2,151,400
1916	60,000	60.50	3,630,000	37.15	0.64	2,323,000
Barley.....1915	2,650	40.36	106,900	49.89	0.64	68,400
1916	2,700	45.75	124,000	47.60	0.83	103,000
Peas.....1915	1,300	29.75	38,700	60.00	1.24	48,000
1916	1,300	33.75	44,000	61.20	1.67	73,000
Mixed grains.....1915	2,600	40.00	104,000	—	0.50	52,000
1916	2,600	50.00	130,000	52.00	1.25	163,000

## AGRICULTURE.

## 1.—Area, Yield, Quality and Value of principal Field Crops in Canada, 1915 and 1916—concluded.

Crops.	Area.	Yield per acre.	Total yield.	Weight per meas- ured bushel	Aver- age price per bushel	Total value.
British Columbia—con.	acres.	bush.	bush.	lb.	\$	\$
Potatoes.....1915	16,000	247.28	3,956,000	—	0.45	1,780,000
1916	15,300	189.00	2,892,000	—	0.70	2,024,000
Turnips, man- golds, etc.....1915	3,800	455.61	1,731,000	—	0.39	675,000
1916	3,700	500.00	1,850,000	—	0.50	925,000
		tons.	tons.		per ton.	
Hay and clover...1915	167,000	2.34	391,000	—	14.57	5,697,000
1916	175,000	2.67	467,000	—	17.75	8,289,000
Fodder corn.....1915	430	12.62	5,400	—	4.00	22,000
1916	450	10.00	4,500	—	7.00	32,000
Alfalfa.....1915	12,100	3.52	43,000	—	14.84	638,000
1916	12,600	2.88	36,000	—	15.00	540,000

## 2. Areas and Yields of Wheat, Oats, Barley and Flaxseed in the three Prairie Provinces, 1915 and 1916.

Provinces.	1915.	1916.	1915.	1916.
	acres.	acres.	bush.	bush.
Prairie Provinces—				
Wheat.....	13,867,715	14,362,809	360,187,000	242,314,000
Oats.....	6,480,681	7,359,487	279,692,000	313,916,000
Barley.....	1,171,082	1,391,296	36,003,000	33,419,000
Flax.....	457,759	652,781	6,045,000	8,212,500
Manitoba—				
Wheat.....	2,800,424	2,725,725	69,337,000	29,667,000
Oats.....	1,317,365	1,443,599	50,750,000	48,439,000
Barley.....	567,080	687,503	16,658,000	13,729,000
Flax.....	14,505	15,684	120,000	210,000
Saskatchewan—				
Wheat.....	8,929,260	9,032,109	224,312,000	147,559,000
Oats.....	3,336,245	3,791,807	145,066,000	163,278,000
Barley.....	299,993	367,207	9,523,000	9,916,000
Flax.....	395,254	542,034	5,255,000	6,692,000
Alberta—				
Wheat.....	2,138,031	2,604,975	66,538,000	65,088,000
Oats.....	1,827,071	2,124,081	83,876,000	102,199,000
Barley.....	304,009	336,586	9,822,000	9,774,000
Flax.....	48,000	95,063	670,000	1,310,500

## P R O D U C T I O N .

## 3. Total Areas and Values of Field Crops in Canada, 1911-1916.

## AREAS.

Provinces.	1911.	1912.	1913.	1914.	1915.	1916.
	acres.	acres.	acres.	acres.	acres.	acres.
Canada.....	34,545,672	35,575,550	35,374,930	33,436,671	39,140,460	38,930,333
P. E. Island.....	477,035	462,880	456,970	461,510	481,930	485,910
Nova Scotia.....	709,703	700,160	711,630	693,860	727,260	746,580
New Brunswick.....	978,530	931,990	906,130	904,056	893,800	889,220
Quebec.....	5,375,066	5,010,400	4,898,800	4,863,850	4,901,760	4,590,200
Ontario.....	9,648,909	9,349,000	9,200,000	8,973,700	9,391,500	7,637,500
Manitoba.....	5,134,087	4,971,400	4,965,000	4,671,790	4,843,816	5,030,960
Saskatchewan.....	8,644,102	10,315,800	10,307,600	9,238,000	13,036,596	13,850,769
Alberta.....	3,351,745	3,603,060	3,690,100	3,369,270	4,570,918	5,409,544
British Columbia.....	226,495	230,860	238,700	260,640	292,880	289,650

## VALUES.

	\$	\$	\$	\$	\$	\$
Canada.....	597,926,000	557,344,100	552,771,500	638,580,300	825,370,600	886,494,900
P. E. Island.....	9,099,300	9,456,000	9,535,500	11,544,000	10,930,400	14,124,100
Nova Scotia.....	17,174,500	19,420,000	17,132,900	21,969,700	19,556,700	22,369,800
New Brunswick.....	17,635,200	17,295,700	17,965,100	20,045,100	20,092,600	22,924,200
Quebec.....	106,248,000	69,901,000	88,589,000	99,279,000	104,883,000	102,937,300
Ontario.....	195,764,000	193,715,000	167,835,000	196,220,000	207,013,500	199,646,000
Manitoba.....	76,548,000	71,647,000	84,557,000	65,528,400	92,318,800	76,749,000
Saskatchewan.....	115,426,000	115,813,000	129,376,000	152,751,500	265,605,700	292,773,900
Alberta.....	48,475,000	44,503,400	46,712,000	59,779,600	93,514,200	148,738,600
British Columbia.....	11,496,000	10,593,000	11,069,000	11,463,000	11,625,700	15,232,600

**Farm Live Stock.**—Table 4 gives the estimated numbers of each description of farm live stock (horses, cattle, sheep and swine) for the years 1912 to 1917. In this table the figures for 1917 for the provinces of Quebec, Saskatchewan, Alberta and British Columbia are as collected in June, 1917; but for the other provinces the figures are as estimated from the reports of correspondents on the basis of the census. For 1916, the figures for the three Prairie Provinces are those of the recently issued Reports on the Census of 1916, whilst for the other provinces they are estimated from the reports of correspondents. For each of the years 1912 to 1915 the figures represent for all provinces estimates based on the reports of correspondents.

**Values of Farm Live Stock and of Wool.**—Table 5 shows the average values per head of farm animals, as estimated from the reports of correspondents of the Census and Statistics Office for the year 1916, as compared with the years 1908, 1909, 1910, 1914 and 1915. Horses and cattle other than milch cows are divided according to age, and the unit value for swine is 100 lb. live weight. The table gives also an estimate of the value per lb. of unwashed and washed wool.

The average value of horses in 1916 was about the same as in 1915, but milch cows, other cattle, sheep and swine showed a substantial increase and returned values that were higher than in any year since these records began to be collected in 1909. Horses three years old and over averaged for Canada \$160 as against \$160 in 1915, milch cows were \$70 as compared with \$62, cattle between one year old and

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three years averaged \$43 against \$38, sheep averaged \$10.48 against \$7.96 and swine \$11.98 per 100 lb. live weight as against \$8.58. The average value of wool attained a record of 37 cents per lb. for unwashed and 50 cents per lb. for washed wool. Using the numbers of live stock as estimated for 1916, and the average values of December, 1916, as returned in January, 1917, the total estimated value of the farm animals of Canada for 1916, as shown in Table 6, was \$903,685,700, as compared with \$749,640,000 in 1915, the values of each description being as follows: Horses \$418,684,300 as against \$373,381,000 in 1915; milch cows \$198,896,300 as against \$163,919,000; other horned cattle \$204,476,900 as against \$152,461,000; sheep \$20,927,200 as against \$16,226,000 and swine \$60,701,000 as against \$43,653,000.

## 4.—Numbers of Farm Live Stock by Provinces, 1912-1917.

Live Stock.	1912.	1913.	1914.	1915.	1916.	1917.
	No.	No.	No.	No.	No.	No.
Canada—						
Horses.....	2,692,357	2,866,008	2,947,738	2,996,099	3,258,342	3,412,749
Milch cows.....	2,604,488	2,740,434	2,673,286	2,666,846	2,833,433	3,202,283
Other cattle.....	3,827,373	3,915,687	3,363,531	3,399,155	3,760,718	4,718,657
Sheep.....	2,082,381	2,128,531	2,058,045	2,038,662	2,022,941	2,369,358
Swine.....	3,477,310	3,448,326	3,434,261	3,111,900	3,474,840	3,619,382
P. E. Island—						
Horses.....	35,638	35,952	36,114	36,898	38,562	38,948
Milch cows.....	49,415	48,565	47,317	47,043	46,032	46,032
Other cattle.....	64,688	64,261	61,048	59,503	57,260	54,970
Sheep.....	87,793	85,660	85,351	86,640	88,797	90,573
Swine.....	50,463	43,762	41,718	40,792	38,300	35,236
Nova Scotia—						
Horses.....	61,735	62,550	62,581	63,244	64,193	64,193
Milch cows.....	130,104	130,468	128,237	128,814	130,141	131,442
Other cattle.....	156,051	153,726	148,269	144,458	140,673	135,046
Sheep.....	216,135	217,734	211,921	205,542	200,979	200,979
Swine.....	61,194	56,580	53,892	53,402	51,928	49,850
New Brunswick—						
Horses.....	65,582	65,108	65,702	65,827	65,169	65,169
Milch cows.....	110,507	106,904	102,713	101,665	100,221	100,221
Other cattle.....	113,136	107,864	99,256	96,437	92,223	89,456
Sheep.....	148,723	135,115	211,739	111,026	105,997	103,877
Swine.....	85,905	77,014	73,325	72,533	70,683	69,269



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## 4.—Numbers of Farm Live Stock by Provinces, 1912-1917—concluded.

Live Stock.	1912.	1913.	1914.	1915.	1916.	1917.
Quebec—	No.	No.	No.	No.	No.	No.
Horses.....	367,402	369,974	372,009	372,567	332,628	379,276
Milch cows.....	755,770	761,816	733,476	720,420	639,805	911,023
Other cattle.....	695,906	693,540	625,958	612,500	535,693	958,010
Sheep.....	620,881	602,751	571,287	554,491	497,711	849,148
Swine.....	747,254	661,768	634,569	632,729	531,303	712,087
Ontario—						
Horses.....	805,271	902,628	904,975	903,527	896,208	887,246
Milch cows.....	1,033,392	1,141,071	1,085,843	1,077,808	1,082,119	1,082,119
Other cattle.....	1,380,890	1,460,015	970,445	935,606	901,924	865,847
Sheep.....	677,462	705,848	640,416	611,789	589,581	595,477
Swine.....	1,693,594	1,652,440	1,553,624	1,469,573	1,404,618	1,236,064
Manitoba—						
Horses.....	293,776	304,088	316,707	317,847	324,175	324,175
Milch cows.....	148,471	152,792	156,306	157,494	196,288	202,177
Other cattle.....	267,130	256,926	251,996	246,603	357,870	357,870
Sheep.....	40,800	42,840	45,303	50,880	76,750	80,588
Swine.....	183,370	184,745	186,276	163,308	205,898	175,013
Saskatchewan—						
Horses.....	551,645	580,386	609,521	630,062	841,907	880,301
Milch cows.....	184,896	194,843	204,624	211,684	322,185	354,403
Other cattle.....	461,244	468,255	474,436	543,609	689,208	856,687
Sheep.....	114,810	115,568	126,027	133,311	124,237	127,892
Swine.....	344,298	386,784	454,703	411,324	530,727	573,938
Alberta—						
Horses.....	451,573	484,809	519,424	544,772	634,188	718,317
Milch cows.....	157,922	168,376	179,068	183,974	277,324	325,861
Other cattle.....	587,307	610,917	633,032	660,000	882,766	1,209,433
Sheep.....	135,075	178,015	211,001	238,579	292,620	276,966
Swine.....	278,747	350,692	397,123	229,696	603,554	730,237
British Columbia—						
Horses.....	59,735	60,518	60,705	61,355	61,312	55,124
Milch cows.....	34,011	35,599	35,702	37,944	39,318	49,005
Other cattle.....	101,021	100,183	99,091	100,439	103,101	191,338
Sheep.....	40,702	45,000	45,000	46,404	46,269	43,858
Swine.....	32,485	34,541	39,031	38,543	37,829	37,688

## A G R I C U L T U R E .

## 5.—Average Values of Farm Animals and of Wool, as estimated by Correspondents, 1909, 1910, 1914, 1915 and 1916.

Provinces.	Horses.			Milch cows.	Other horned cattle			Swine per 100 lb. live weight.	Sheep	Wool per lb.	
	Under 1 year	1 year to under 3 years	3 years and over		Under 1 year	1 year to under 3 years	3 years and over			Un-washed	Washed
	\$	\$	\$	\$	\$	\$	\$	\$ c.	\$ c.	\$ c.	\$ c.
Canada.....1909	49	106	150	36	10	23	33	7.90	5.89	0.17	0.24
1910	54	119	171	42	12	26	39	7.85	6.30	0.18	0.24
1914	55	114	165	57	16	37	54	7.24	7.07	0.19	0.26
1915	54	111	160	62	17	38	55	8.58	7.96	0.28	0.38
1916	54	109	160	70	20	43	63	11.98	10.48	0.37	0.50
P.E. Island.....1909	34	87	126	31	8	19	28	7.33	4.55	0.16	0.22
1910	44	102	140	32	8	19	28	6.70	5.82	0.17	0.24
1914	46	95	143	39	11	23	35	7.14	6.05	0.21	0.27
1915	42	92	136	42	11	25	37	8.02	6.97	0.32	0.40
1916	37	76	112	52	14	31	46	12.27	9.13	0.37	0.47
Nova Scotia.....1909	40	90	133	33	9	23	37	7.26	4.13	0.19	0.24
1910	46	95	145	37	9	24	40	7.25	4.48	0.20	0.25
1914	53	116	166	40	10	25	42	7.75	4.70	0.21	0.26
1915	53	108	167	45	11	28	44	7.94	5.28	0.31	0.40
1916	50	99	150	53	13	33	54	10.77	6.55	0.39	0.49
N. Brunswick.....1909	40	90	137	29	8	18	28	7.36	4.22	0.18	0.24
1910	50	112	157	33	8	19	31	7.05	4.60	0.18	0.23
1914	54	123	183	40	11	24	39	8.16	4.63	0.22	0.28
1915	59	127	182	40	11	25	37	8.17	5.25	0.30	0.40
1916	55	113	169	48	13	28	44	11.63	6.49	0.36	0.48
Quebec.....1909	41	98	145	33	8	19	29	9.62	5.47	0.21	0.29
1910	46	103	155	39	9	21	32	8.78	5.72	0.21	0.29
1914	49	107	164	47	11	27	41	8.91	6.60	0.23	0.30
1915	48	104	159	51	12	28	42	9.81	7.48	0.33	0.43
1916	49	105	155	62	16	35	52	14.28	10.73	0.44	0.58
Ontario.....1909	53	110	144	40	12	26	38	7.33	6.63	0.14	0.20
1910	60	127	174	48	14	31	46	7.30	7.00	0.14	0.20
1914	54	111	152	64	20	43	62	7.74	8.70	0.19	0.25
1915	51	102	142	70	20	45	64	8.90	10.03	0.26	0.33
1916	52	105	151	76	23	51	71	12.06	12.81	0.34	0.44
Manitoba.....1909	63	132	187	34	10	21	30	7.00	7.08	0.09	0.14
1910	68	146	207	40	11	24	36	6.50	6.50	0.10	0.13
1914	61	126	176	62	17	38	56	6.28	8.76	0.14	0.18
1915	63	124	178	65	18	41	60	7.75	8.56	0.21	0.29
1916	61	123	171	74	21	47	67	10.83	11.57	0.31	0.37
Saskatchewan.....1909	56	123	180	38	11	25	40	6.86	7.01	0.10	0.13
1910	50	137	200	41	12	27	40	7.50	7.00	0.09	0.14
1914	63	133	187	66	18	41	61	5.74	7.08	0.15	0.20
1915	64	132	150	69	20	44	62	8.26	7.97	0.20	0.24
1916	65	133	188	73	22	47	67	10.20	9.94	0.28	0.33
Alberta.....1909	47	97	150	35	11	23	33	7.20	6.80	0.12	0.18
1910	51	108	164	39	12	25	38	7.60	6.30	0.11	0.18
1914	45	91	137	66	21	42	61	5.99	6.96	0.14	0.18
1915	47	97	142	69	22	45	64	7.70	7.57	0.23	0.25
1916	51	102	151	77	27	51	73	11.04	9.82	0.28	0.37
British Columbia..1909	44	111	165	51	12	26	38	7.50	6.72	0.10	0.15
1910	63	144	225	57	13	28	43	-	-	0.10	0.15
1914	46	93	162	89	22	48	73	8.00	8.33	0.15	0.16
1915	42	93	136	91	21	48	67	9.09	7.86	0.19	0.20
1916	48	87	144	90	24	48	72	12.89	10.67	0.29	0.45

## PRODUCTION.

6. --Numbers in June and Values in December of Farm Live Stock in Canada,  
as estimated by Correspondents, 1915 and 1916.

Farm animals.	1915.	1916.	1915.	1916.	1915.	1916.
	No.	No.	\$ per head.	\$ per head.	\$	\$
Canada—						
Horses.....	2,996,099	3,258,342	124.50	128.50	373,381,000	418,684,300
Milch cows.....	2,666,846	2,833,433	61.50	70.20	163,919,000	198,896,300
Other cattle.....	3,399,155	3,760,718	44.85	54.37	152,461,000	204,476,900
Sheep.....	2,038,662	2,022,941	8.00	10.34	16,226,000	20,927,200
Swine.....	3,111,900	3,474,840	14.00	17.47	43,653,000	60,701,000
Prince Edward Island—						
Horses.....	36,898	38,562	106.00	87.00	3,911,000	3,355,000
Milch cows.....	47,043	46,032	41.50	52.00	1,952,000	2,394,000
Other cattle.....	59,503	57,260	27.50	34.50	1,636,000	1,975,000
Sheep.....	86,640	88,797	7.00	9.00	606,000	799,000
Swine.....	40,792	38,300	12.50	20.00	510,000	766,000
Nova Scotia—						
Horses.....	63,244	64,193	120.50	108.00	7,621,000	6,933,000
Milch cows.....	128,814	130,141	44.50	53.00	5,732,000	6,897,000
Other cattle.....	144,458	140,673	32.00	37.50	4,622,000	5,275,000
Sheep.....	205,542	200,979	5.50	6.50	1,130,000	1,306,000
Swine.....	53,402	51,928	18.00	18.00	961,000	935,000
New Brunswick—						
Horses.....	65,827	65,169	137.00	126.50	9,018,000	8,244,000
Milch cows.....	101,665	100,221	40.00	48.50	4,067,000	4,861,000
Other cattle.....	96,437	92,223	28.00	33.00	2,700,000	3,043,000
Sheep.....	111,026	105,997	5.00	6.50	555,000	689,000
Swine.....	72,533	70,683	17.50	17.00	1,269,000	1,202,000
Quebec—						
Horses.....	372,567	332,625	112.00	115.00	41,728,000	38,252,000
Milch cows.....	720,420	639,805	50.50	62.00	36,381,000	39,668,000
Other cattle.....	612,500	535,698	40.50	50.50	24,806,000	27,052,000
Sheep.....	554,491	497,711	7.50	10.50	4,159,000	5,226,000
Swine.....	632,729	531,308	14.50	17.00	9,175,000	9,032,000
Ontario—						
Horses.....	903,527	896,208	120.00	125.00	108,423,000	112,026,000
Milch cows.....	1,077,808	1,082,119	69.50	76.00	74,908,000	82,241,000
Other cattle.....	935,606	901,924	47.50	65.00	44,441,000	58,625,000
Sheep.....	611,789	589,581	10.00	12.50	6,118,000	7,370,000
Swine.....	1,469,573	1,404,618	14.00	18.00	20,574,000	25,283,000
Manitoba—						
Horses.....	317,847	324,175	133.00	128.00	42,274,000	41,494,400
Milch cows.....	157,494	196,288	65.00	73.50	10,237,000	14,427,000
Other cattle.....	246,603	357,870	44.00	51.00	10,851,000	18,251,400
Sheep.....	50,880	76,750	8.50	11.50	432,000	882,600
Swine.....	163,308	205,898	14.50	17.00	2,368,000	3,500,200
Saskatchewan—						
Horses.....	630,062	841,907	147.00	148.50	92,619,000	125,021,200
Milch cows.....	211,684	322,185	69.00	72.50	14,606,000	23,358,400
Other cattle.....	543,609	689,208	48.00	51.00	26,093,000	35,149,600
Sheep.....	133,311	124,237	8.00	10.00	1,066,000	1,242,400
Swine.....	411,324	530,727	13.00	17.00	5,347,000	9,022,400
Alberta—						
Horses.....	544,772	634,188	113.00	121.00	61,559,000	76,736,700
Milch cows.....	183,974	277,324	68.50	77.00	12,602,000	21,353,900
Other cattle.....	660,000	882,766	49.00	56.00	32,340,000	49,434,900
Sheep.....	238,579	292,620	7.50	10.00	1,789,000	2,926,200
Swine.....	229,696	603,554	12.50	17.00	2,871,000	10,260,400
British Columbia—						
Horses.....	61,355	61,312	101.50	108.00	6,228,000	6,622,000
Milch cows.....	37,944	39,318	90.50	94.00	3,434,000	3,696,000
Other cattle.....	100,439	103,101	49.50	55.00	4,972,000	5,671,000
Sheep.....	46,404	46,269	8.00	10.50	371,000	486,000
Swine.....	38,543	37,829	15.00	18.50	578,000	700,000

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**Values of Farm Land.**—Table 7 shows the average values per acre of occupied farm lands in Canada, as estimated by correspondents in each of years 1908, 1909, 1910, 1914, 1915 and 1916. For the whole of Canada the average value of farm land held for agricultural purposes, whether improved or unimproved, and including the value of dwelling houses, farms, stables and other farm buildings, was approximately \$41 per acre, as compared with \$40 last year. The average values by provinces are as follows: Prince Edward Island \$39; Nova Scotia \$33.6; New Brunswick \$29.4; Quebec \$52; Ontario \$52.5; Manitoba \$32; Saskatchewan \$23; Alberta \$22; British Columbia \$118.5. In the last-named province the higher average is due to orcharding and fruit growing.

7.—Average Values per acre of Occupied Farm Lands in Canada, as estimated by Correspondents, 1908, 1909, 1910, 1914, 1915 and 1916.

Provinces.	1908.	1909.	1910.	1914.	1915.	1916.
	\$	\$	\$	\$	\$	\$
Canada.....	35.70	33.60	38.45	38.41	39.70	40.95
Prince Edward Island.....	33.70	32.07	31.24	38.65	37.64	39.13
Nova Scotia.....	25.00	30.50	24.72	27.99	28.00	33.67
New Brunswick.....	21.40	23.77	18.50	25.61	22.48	29.45
Quebec.....	41.90	43.37	42.50	47.00	51.36	52.13
Ontario.....	47.30	50.22	48.00	54.45	52.49	52.59
Manitoba.....	27.30	28.94	28.67	31.67	30.36	32.03
Saskatchewan.....	20.40	21.54	22.00	23.82	24.20	23.07
Alberta.....	18.20	20.46	24.00	21.03	23.15	22.18
British Columbia.....	76.10	73.44	74.00	150.00	125.00	118.51

**Wages of Farm Help in Canada.**—The average wages paid for farm help during 1916 reached a higher level than in any previous year for which returns have been collected. As shown by Table 8 the wages per month during the summer, including board, for the whole of the Dominion, averaged \$43.23 for male and \$22.46 for female help, as compared with \$37.10 and \$20.20 in 1915. For the year 1916, including board, the wages averaged \$397 for males and \$228 for females, as compared with \$341 and \$200 in 1915. The average value of board per month was returned as \$17 for males and \$13 for females, the corresponding figures of 1915 being \$14.57 and \$11.45. By provinces the average wages per month for males and females respectively in the summer season, including board, were as follows: Prince Edward Island \$31.35 and \$17.81; Nova Scotia \$38.77 and \$19.11; New Brunswick \$35.74 and \$16.66; Quebec \$40.79 and \$19.70; Ontario \$39.41 and \$20.58; Manitoba \$48.37 and \$26.97; Saskatchewan \$48.55 and \$25.66; Alberta \$52.28 and \$29.12; British Columbia \$49.86 and \$28.66.



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## 8.—Average Wages of Farm Help in Canada as estimated by Correspondents, 1909, 1910, 1914, 1915 and 1916.

Provinces.	Per month in summer season, including board.		Per year, including board.		Average value of board per month.		
	Males.	Females.	Males.	Females.	Males.	Females.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
Canada.....	1909	33.69	19.08	336.29	206.08	10.00	8.00
	1910	35.15	20.70	347.70	209.69	12.49	9.56
	1914	35.55	18.81	323.30	189.35	14.27	11.24
	1915	37.10	20.20	341.00	200.00	14.57	11.45
	1916	43.23	22.46	396.88	227.86	16.90	13.06
P. E. Island.....	1909	25.27	13.87	226.47	144.27	8.00	6.00
	1910	26.60	15.00	244.89	149.25	10.15	7.60
	1914	24.71	13.48	220.93	135.89	10.12	7.62
	1915	26.67	14.59	237.52	136.80	10.28	9.44
	1916	31.35	17.81	301.35	166.79	12.63	9.22
Nova Scotia.....	1909	31.20	15.00	310.85	165.13	10.00	7.00
	1910	33.70	16.90	321.30	175.60	11.50	7.90
	1914	31.20	14.80	301.00	155.47	11.48	8.11
	1915	32.95	15.85	309.78	168.81	11.66	8.36
	1916	38.77	19.11	364.91	194.88	15.84	11.29
New Brunswick...	1909	32.59	16.02	239.55	172.13	10.00	8.00
	1910	33.90	16.70	289.40	151.65	11.25	7.50
	1914	31.93	15.10	301.55	164.79	11.23	7.76
	1915	33.73	16.11	307.96	153.44	14.17	8.48
	1916	35.74	16.66	328.02	163.91	13.58	9.61
Quebec.....	1909	33.33	16.75	330.97	176.89	10.00	8.00
	1910	36.40	18.98	313.41	177.94	11.56	8.00
	1914	33.56	15.65	296.35	152.38	13.29	9.37
	1915	33.08	16.44	301.00	159.00	13.37	9.60
	1916	40.79	19.70	370.92	195.79	15.77	10.95
Ontario.....	1909	31.52	18.22	331.56	203.37	10.00	8.00
	1910	31.40	20.10	335.84	211.10	12.00	9.60
	1914	32.09	16.67	297.29	172.00	13.09	10.43
	1915	31.09	17.12	304.00	179.00	13.30	10.58
	1916	39.41	20.58	360.43	205.81	16.43	12.59
Manitoba.....	1909	35.95	23.97	365.55	261.84	11.00	9.00
	1910	40.00	25.00	400.00	282.00	14.70	11.30
	1914	39.13	22.35	364.41	225.61	15.49	12.98
	1915	45.18	27.29	390.47	244.79	15.21	12.75
	1916	48.37	26.97	454.29	283.16	18.14	14.61
Saskatchewan....	1909	38.30	24.23	389.90	263.86	16.00	10.00
	1910	40.00	24.50	402.50	263.60	14.00	13.00
	1914	40.51	22.96	365.90	234.93	16.50	13.96
	1915	42.22	23.81	386.06	240.90	16.78	13.97
	1916	48.55	25.66	433.58	278.10	18.19	15.33
Alberta.....	1909	40.08	26.16	421.62	285.12	15.00	12.00
	1910	40.00	27.50	416.00	300.00	16.70	13.90
	1914	40.26	23.63	364.80	236.32	16.36	13.91
	1915	44.02	24.25	404.00	253.00	16.94	14.17
	1916	52.28	29.12	501.27	299.21	19.52	16.39
British Columbia.	1909	45.50	25.27	428.33	265.00	15.00	10.00
	1910	57.40	38.00	—	—	20.00	17.00
	1914	47.85	31.18	459.72	324.44	21.40	17.58
	1915	49.37	31.21	463.04	286.68	19.15	16.00
	1916	49.86	28.66	542.91	325.09	21.86	18.38

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**Creameries and Cheese Factories, 1915 and 1916.**—A report issued in 1917 by the Census and Statistics Office shows that the total number of creameries and factories operating in 1916 was 3,446, including 993 creameries, 1,813 cheese factories, 624 combined factories (butter and cheese) and 16 condensed milk factories. The total number of patrons (i.e., dairy farmers contributing milk or cream) in 1916 was 221,192. The total deliveries in 1916 of milk amounted to 2,600,542,987 lb. and of cream to 157,620,636 lb. The two chief dairying provinces of the Dominion are Ontario and Quebec. Both manufacture cheese and butter; in Ontario more cheese is made than butter; in Quebec more butter is made than cheese. In Ontario the total number of establishments operating in 1916 was 1,165 and the patrons numbered 87,325, whilst in Quebec the establishments numbered 1,984 and the patrons 79,145; so that the average number of patrons per establishment was 75 in Ontario and 40 in Quebec.

**Production of Creamery Butter.**—The total production of creamery butter in Canada in 1916, as shown in Table 9, was returned as 82,564,130 lb. of the value of \$26,966,355, as compared with 83,991,453 lb. of the value of \$24,385,052 in 1915. Comparing the relative production of the provinces the production in 1916 was highest in Quebec with 34,323,275 lb. of the value of \$11,516,148, as compared with 24,680,109 lb. of the value of \$8,031,997 in Ontario. These two provinces together produce about 70 p.c. of the total creamery butter of Canada. Of the other provinces the production and value of creamery butter in 1916 were in relative order as follows: Alberta 8,521,784 lb., value \$2,619,248; Manitoba 6,574,510 lb., value \$2,038,109; Saskatchewan 4,310,669 lb., value \$1,338,180; Nova Scotia 1,586,679 lb., value \$505,000; British Columbia 1,243,292 lb., value \$497,316; New Brunswick 709,932 lb., value \$236,193; and Prince Edward Island 613,880 lb., value \$184,164. The average price per lb. of creamery butter for all Canada worked out to 33 cents in 1916, as compared with 30 cents in 1915. By provinces in 1916 the highest price was in British Columbia, 42 cents, and the lowest in Prince Edward Island, 30 cents. In the other provinces the price per lb. for 1916 was as follows: Nova Scotia 32 cents; New Brunswick 33 cents; Quebec 34 cents; Ontario 33 cents; the Prairie Provinces 31 cents.

**Production of Factory Cheese.**—Table 9 shows also that the total production of factory cheese in 1916 was 192,968,597 lb. of the value of \$35,512,622, as compared with 183,887,837 lb. of the value of \$27,097,176 in 1915. By provinces the lead in production is taken by Ontario with a total quantity in 1916 of 126,015,870 lb. of the value of \$23,312,935, Quebec being second with 61,906,750 lb. of the value of \$11,245,104. These two provinces together account for 98 p.c. of the total production of factory cheese. The production and value of factory cheese in the other provinces in 1916 were as follows: Prince Edward Island 2,121,736 lb., value \$409,495; New Brunswick 1,185,664 lb., value \$210,693; Manitoba, 880,728 lb., value \$158,931; Alberta 745,122 lb., value \$154,453; Nova Scotia 94,727 lb., value \$17,051;

## PRODUCTION.

9.—Production of Creamery Butter and Factory Cheese by Quantities and Values, 1915 and 1916.

BUTTER.

Province.	Creameries.		Combined Factories.		Total.		Creameries.		Combined Factories.		Total.	
	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.
Prince Edward Island.....	539,516	613,880	—	—	539,516	613,880	—	—	—	—	—	—
Nova Scotia.....	1,240,433	1,586,678	—	—	1,240,433	1,586,678	—	—	—	—	—	—
New Brunswick.....	729,863	664,751	46,553	45,181	776,416	709,932	217,937	221,162	13,901	15,031	151,065	184,164
Quebec.....	28,121,235	29,488,801	8,500,266	4,894,474	36,621,491	34,383,275	8,395,109	9,929,165	2,504,701	1,586,983	346,011	505,000
Ontario.....	25,092,559	23,417,377	1,391,561	1,262,732	26,414,120	24,680,108	7,130,403	7,637,796	404,250	394,201	10,899,810	11,516,148
Manitoba.....	5,839,667	6,574,510	—	—	5,839,667	6,574,510	1,693,503	2,038,109	—	—	7,534,652	8,031,997
Saskatchewan.....	3,811,014	4,310,666	—	—	3,811,014	4,310,666	1,055,000	1,338,180	—	—	1,693,503	2,038,109
Alberta.....	3,221,964	4,275,760	4,322,184	4,246,024	7,544,148	8,521,784	891,647	1,323,152	—	—	1,055,000	1,338,180
British Columbia.....	1,294,598	1,243,292	—	—	1,294,598	1,243,292	451,724	479,316	—	—	2,021,448	2,619,248
<b>Total.....</b>	<b>69,730,899</b>	<b>72,175,719</b>	<b>14,260,554</b>	<b>10,388,411</b>	<b>83,991,453</b>	<b>82,564,130</b>	<b>20,332,399</b>	<b>23,674,044</b>	<b>4,052,653</b>	<b>3,292,311</b>	<b>24,385,052</b>	<b>26,966,365</b>

CHEESE.

Province.	Cheese Factories.		Combined Factories.		Total.		Cheese Factories.		Combined Factories.		Total.	
	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.	1916.
Prince Edward Island.....	2,260,000	2,121,736	—	—	2,260,000	2,121,736	327,700	409,495	—	—	327,700	409,495
Nova Scotia.....	125,580	94,727	—	—	125,580	94,727	18,837	17,051	—	—	18,837	17,051
New Brunswick.....	1,086,413	1,067,068	79,298	118,596	1,165,651	1,185,664	156,660	189,618	11,426	21,075	168,086	210,693
Quebec.....	34,932,111	38,059,681	19,255,092	23,847,060	54,217,113	61,906,750	4,598,358	6,573,544	2,673,333	4,371,560	7,571,691	11,245,104
Ontario.....	100,676,000	101,535,235	24,325,136	24,480,685	125,001,136	126,015,570	15,784,018	18,784,018	3,707,313	4,598,917	18,831,413	23,312,935
Manitoba.....	726,723	880,728	—	—	726,723	880,728	104,008	158,931	—	—	109,008	158,931
Alberta.....	30,690	135,435	290,942	693,687	381,632	745,122	14,691	24,728	53,750	129,735	68,441	154,433
British Columbia.....	—	—	10,000	18,000	13,000	18,000	—	—	2,900	3,360	2,000	3,360
<b>Total.....</b>	<b>139,897,519</b>	<b>143,894,610</b>	<b>43,990,318</b>	<b>49,073,987</b>	<b>183,887,837</b>	<b>192,968,597</b>	<b>20,649,354</b>	<b>26,457,385</b>	<b>6,447,822</b>	<b>9,055,237</b>	<b>27,097,176</b>	<b>32,512,622</b>

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and British Columbia 18,000 lb., value \$3,960. The average price per lb. of factory cheese for all Canada worked out to 21 cents in 1916, as compared with 17 cents in 1915. In 1916 the average price was highest in British Columbia, 25 cents. In Quebec and Ontario the average price was 18 cents and in Alberta it was 21 cents.

**Comparative Statistics of Creamery Butter and Factory Cheese.—**

In Table 10 the production and value of creamery butter and factory cheese for all Canada is compared for the years 1900, 1907, 1910, 1915 and 1916; for 1900 and 1910 the figures shown are those of the decennial census; for 1907 they are those of the special postal census of that year and for 1915 and 1916 they are taken from the report of the Census and Statistics Office, mentioned above.

10.—Production and Value of Creamery Butter and Factory Cheese,  
1900-07-10-15-16.

Year.	Estab- lish- ments.	Creamery Butter.		Factory Cheese.	
		lb.	\$	lb.	\$
1900. ....	3,576	36,066,739	7,240,972	220,833,269	22,221,430
1907. ....	3,515	45,930,294	10,949,062	204,788,583	23,597,639
1910. ....	3,625	64,698,165	15,645,845	199,904,205	21,587,124
1915. ....	3,513	83,991,453	24,385,052	183,887,837	27,097,177
1916. ....	3,446	82,564,130	26,966,357	192,968,597	35,512,622

**Estimated Total Dairy Production of Canada.**—These statistics relate solely to the production of butter in creameries and of cheese in factories. They do not include butter made on the farm, which is sold under the general term of "dairy butter" and which constitutes the larger proportion of the total production. Nor do they include the small proportion of home-made cheese. There are no annual statistics of the production of home-made butter and cheese; but the Census of 1911 showed that in 1910 the total production of home-made butter was 137,110,200 lb., or 68 p.c. of the total butter production, viz., 201,808,365 lb., and that for cheese in the same year the home-made product amounted to 1,371,092 lb., or 0.7 p.c. of the total cheese production of 201,275,297 lb.

Under these conditions the total dairying output of Canada in other than census years can only be a matter of approximate calculation, based on the estimated number of milch cows, the factory production of butter and cheese and the exports and imports of all dairy products. In 1915 the estimated number of milch cows in Canada was 2,666,846 and in 1916 it was 2,608,345.<sup>1</sup> In 1911 the Census showed that the average production of milk per cow was 3,805 lb., or, at the rate of 10 lb.

<sup>1</sup>As originally estimated. The number has been corrected to 2,833,433 to correspond with the census returns as in Tables 4 and 6.



## P R O D U C T I O N .

per gallon,  $380\frac{1}{2}$  gallons. This average, applied to the two years 1915 and 1916, shows a total milk production in the former year of 10,147,-349,000 lb. and in the latter year of 9,924,752,700 lb. Assuming that (1) the estimates of the number of milch cows in Canada and (2) the average milk production per cow are approximately correct, the total production of milk and its distribution in the form of dairying products for each of the two years 1915 and 1916, may be calculated as in Table 11.

## 11.—Estimated Yield of Milk and Distribution of Dairy Products, 1915 and 1916.

Expressed in lb. of milk ("000" omitted).

Items.	1915.	1916.	1915.	1916.
<b>Total Yield of Milk</b> .....			<b>10,147,349</b>	<b>9,924,753</b>
Imports—				
Condensed milk .....	246	277		
Milk and cream, fresh .....	132	271		
Butter .....	130,205	48,111		
Cheese .....	12,095	7,985	142,678	56,644
			<b>10,290,027</b>	<b>9,981,397</b>
Distribution—				
Creamery butter .....	1,931,803	1,898,975		
Home-made butter .....	4,101,956	4,035,325		
<b>Total butter</b> .....	<b>6,033,759</b>	<b>5,934,300</b>		
Factory cheese .....	1,930,822	2,026,170		
Home-made cheese .....	19,483	20,466		
<b>Total cheese</b> .....	<b>1,950,305</b>	<b>2,046,636</b>		
Condensed milk, etc. ....	120,000	120,000		
Exports of fresh cream .....	129,867	82,000		
Exports of fresh milk .....	4,220	7,370	8,238,151	8,190,306
Balance consumed as whole milk, ice cream, etc. ....			2,051,876	1,791,091

In Table 11 the quantities are expressed in terms of milk by weight. Butter, cheese, cream and condensed milk or cream have been converted into lb. of milk by the application in each case of recognized average formulæ. The quantities of home-made butter and cheese have been estimated on the census basis that 68 p.c. of the total represents home-made butter and that 1 p.c. of the total represents home-made cheese.

**Estimated Consumption of Whole Milk.**—After adding to the estimated production the imports of condensed milk, milk, cream, butter

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and cheese, and taking also into account the exports of milk and cream for the calendar years 1915 and 1916, there is a surplus for 1915 of 2,051,876,000 lb. and for 1916 of 1,791,091,000 lb. Estimating the population of Canada to be for both years eight millions, and that on the average 10 lb. of milk equals one gallon, the results obtained indicate an average per capita consumption of whole milk of 25.65 imperial gallons per annum, or 0.56 pint per diem in 1915 and 22.40 gallons per annum or 0.49 pint per diem in 1916. Thus, the calculations made from the available data tend to show that the daily consumption of whole milk in Canada is about half a pint for each person. This ration includes also ice cream, a certain unknown quantity of milk used for calf rearing and milk used for all other purposes apart from those indicated in Table 11.

In this general connection it is of interest to compare these estimates of the whole milk consumption in Canada with those of the United States and of the United Kingdom. In the United States the average consumption was placed at 25 imperial gallons per annum, or 0.56 pint per diem in 1900—a figure exactly equivalent to that of Canada as now given for 1915—and in the United Kingdom an estimate of 1904 placed the per capita consumption at 15 gallons per annum, or 0.33 pint per diem.<sup>1</sup> For 1915 the average per capita consumption of whole milk in the United States is estimated at 0.60 pint. There is little doubt that the larger per capita consumption of milk on this side of the Atlantic is due to the greater partiality for ice cream. The average milk consumption on farms in the United States is estimated at 576 pints per capita per annum, which represents a daily individual average consumption of a pint and a half. Investigations show a daily consumption in the large cities of between six and seven tenths of a pint per capita.<sup>2</sup> Mr. Ernest Kelly, of the Dairy Division of the United States Bureau of Animal Industry, in a letter dated August 30, 1917, states that he has estimated from available figures that about 36,274,480 lb. of milk are used annually in the United States as market milk or cream, and that this would give a yearly per capita consumption for the whole country of about 363 lb., equal to 336 pints per capita per annum, or about nine-tenths of a pint per diem.

**Cold Storage of Perishable Products.**—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6), subsidies are granted by the Dominion Government towards the construction and equipment of cold storage warehouses open to the public, the Act and regulations made thereunder being administered by the Department of Agriculture.<sup>3</sup> Table 12 gives a list of the cold storage warehouses in Canada, with refrigerated space amounting to 24,013,797 cubic feet, of which 4,257,932 cubic feet apply to warehouses subsidized under the Act.

<sup>1</sup>Observations on the Production and Consumption of Meat and Dairy Products. By R. H. Rew, Journal of the Royal Statistical Society, London, England. Vol. LXVII, Part III, Sept. 30, 1904, pp. 413-429. <sup>2</sup>The Production and Consumption of Dairy Products, by EUGENE MERRITT, Bull. U.S. Department of Agriculture, No. 177 (1915). <sup>3</sup>See Canada Year Book, 1907, pp. xvi-xvii, and Bulletin 43, July, 1914, of Dairy and Cold Storage Commissioner's Series, Department of Agriculture, Ottawa.

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## 12.—Cold Storage Warehouses in Canada, 1917.

## (A) SUBSIDIZED PUBLIC WAREHOUSES.

Name.	Place.	Refrigerated Space.  Cubic Feet.	Principal Articles Stored.
Prince Edward Island— Island Cold Storage Co.	Charlottetown...	150,000	General.
Nova Scotia— Lockport Cold Storage Co.....	Lockport.....	59,940	Fish and General.
North Atlantic Fisheries	Port Hawkesbury	338,550	Fish and General.
New Brunswick— Cold Storage, Ltd.....	Woodstock.....	37,161	General.
New Brunswick Cold Storage Co.....	St. John.....	744,000	General.
Quebec— Dominion Fish & Fruit Co.....	Quebec.....	225,000	General.
J. H. Sansregret.....	Joliette.....	23,394	General.
Ontario— Algoma Produce Co....	Sault Ste. Marie..	55,806	General.
Brantford Cold Storage Co.....	Brantford.....	36,000	General.
Chatham Fruit Growers' Association.....	Chatham.....	50,000	Fruit and General.
Gunns, Ltd.....	Harriston.....	57,069	General.
Lemon Bros.....	Owen Sound.....	66,000	General.
Chatham Packing Co., Ltd., successors to O'Keefe & Drew Abat- toir Co.....	Chatham.....	275,340	Meat and General.
Scott & Hogg.....	Peterborough....	90,000	General.
The Whyte Packing Co. Ltd.....	Brockville.....	106,000	General.
St. Thomas Cold Stor- age Co.....	St. Thomas.....	174,141	Meat and General.
The J. D. Moore Co....	St. Mary's.....	105,000	General.
Whyte Packing Co.....	Mitchell.....	306,000	General.
Morrisburg Cold Stor- age, R. H. Ashton....	Morrisburg, Ont..	45,000	General Storage.
Windsor Ice & Coal Co.	Windsor.....	67,300	General Storage.
Manitoba— Brandon Creamery & Supply Co.....	Brandon .....	27,500	General.
Saskatchewan— Regina C. S. & For- warding Co.....	Regina.....	100,672	General.
Moosejaw Cold Storage Co.....	Moosejaw.....	189,764	General.
Metropolitan Cold Stor- age, Henri Gauvin....	Vonda.....	24,000	General.

## AGRICULTURE.

## 12.—Cold Storage Warehouses in Canada, 1917—con.

## (A) SUBSIDIZED PUBLIC WAREHOUSES—con.

Name.	Place.	Refrigerated Space.  Cubic Feet.	Principal Articles Stored.
Alberta—			
Merchants' Cold Storage.....	Calgary .....	152,475	General.
Edmonton Cold Storage Co.....	Edmonton.....	150,056	General.
British Columbia—			
Canadian Fish and Cold Storage Co.....	Prince Rupert....	781,000	Fish and General.
H. & K. Trading Co....	Penticton.....	32,164	General.
The B. Wilson Co. ....	Victoria.....	64,000	General.
<b>Total .....</b>		<b>4,257,932</b>	

## (B) NON-SUBSIDIZED.

Nova Scotia—			
*Canso Cold Storage Co.	Canso.....	62,000	Fish only.
*The Halifax Cold Storage Co.....	Halifax.....	80,000	Fish and General.
Loggie Bros.....	Mulgrave.....	x	Fish.
New Brunswick—			
The Sussex Packing Co., Ltd.....	Sussex.....	82,800	Meat.
Quebec—			
Matthews Blackwell Co. Ltd.....	Hull.....	151,000	Meat.
*Canada Cold Storage Co.....	Montreal.....	762,000	General.
*A. A. Ayer Cold Storage Co.....	Montreal.....	700,000	Dairy Produce.
*Gunn, Langlois & Co....	Montreal.....	400,000	General.
*The Gould Cold Storage Co.....	Montreal.....	500,000	General.
*Matthews Blackwell Co. Ltd.....	Montreal.....	200,000	Meat and General.
*Lovell & Christmas....	Montreal.....	460,000	Dairy Produce.
The Wm. Davies Co., Ltd.....	Montreal.....	225,950	Meat.
Wm. Clark.....	Montreal.....	75,000	Meat.
Montreal Abattoirs, Ltd	Montreal.....	270,000	Meat.
Montreal Abattoirs, Ltd	Montreal.....	203,976	Meat.
Société S.P.A.....	Montreal.....	11,000	Meat.
Gordon-Ironside & Fares Co.....	Montreal.....	19,600	Meat.
Swift Canadian Co., Ltd.....	Montreal.....	47,100	Meat.
Masterman Packing & Provision Co.....	Montreal.....	35,000	Meat.
*Alex. Ames & Sons....	Sherbrooke.....	110,000	General.

NOTE.—Those against which an asterisk (\*) is placed are Public Warehouses.



## P R O D U C T I O N .

## 12.—Cold Storage Warehouses in Canada, 1917—con.

## (B) NON-SUBSIDIZED—con.

Name.	Place.	Refrigerated Space.	Principal Articles Stored.
Ontario—		Cubic Feet.	
Matthews Blackwell Co. Ltd.....	Brantford.....	250,000	Meat.
Collingwood Packing Co.....	Collingwood.....	160,000	Meat.
*Long Bros.....	Collingwood.....	36,000	General.
The Wm. Ryan Co., Ltd.	Fergus.....	30,000	Meat.
The Wm. Davies Co., Ltd.....	Harriston.....	82,504 { Freezer Space }	Meat.
*Fearman Cold Storage & Warehousing Co.....	Hamilton.....	155,200	Meat and General.
Armour & Company.....	Hamilton.....	570,809	Meat.
Ingersoll Packing Co....	Ingersoll.....	550,000	Meat and Dairy Products.
*The London Cold Stor- age & Warehousing Co.....	London.....	400,000	General.
Dominion Abattoirs Ltd.....	London.....	x	Meat.
*McDougall Bros.....	Owen Sound.....	66,400	General.
*Ottawa Cold Stores....	Ottawa.....	129,000	General.
Matthews Blackwell Co. Ltd.....	Peterboro.....	175,000	Meat.
Whyte Packing Co.....	Stratford.....	200,000	Meat.
*J. B. Jackson.....	Simcoe.....	36,000	General.
*The Grimsby Pre-Cool- ing & Experimental Warehouse.....	Grimsby.....	40,000	Fruit.
(Dominion Government)			
*St. Catharines Cold Storage Co.....	St. Catharines...	20,000	Fruit.
Morgan Cold Storage...	Delhi.....	24,000	Eggs.
Gordon-Ironside & Fares Co.....	Port Arthur.....	48,000	Meat.
Gordon-Ironside & Fares Co.....	Fort William....	81,000	Meat.
Gallagher, Holman & Lafrance.....	Fort William....	9,200	Meat
Swift Canadian Co., Ltd.	Fort William....	36,576 { Freezer Space }	Meat.
Swift Canadian Co., Ltd.	West Toronto....	763,000 { Freezer Space }	Meat and General.
Gunns, Limited.....	West Toronto....	175,000	Meat.
Gunns, Limited.....	Toronto.....	30,000	Eggs and Butter.
Gunns, Limited.....	Toronto.....	70,000	Eggs, Butter and Poultry.
*Mannings Cold Storage Co.....	Toronto.....	300,000	General.
*Public Cold Storage & Warehousing Co.....	Toronto.....	768,000	General.

NOTE—Those against which an asterisk (\*) is placed are Public Warehouses.

## AGRICULTURE.

## 12.—Cold Storage Warehouses in Canada, 1917—con.

## (B) NON-SUBSIDIZED—con.

Name.	Place.	Refrigerated Space.	Principal Articles Stored.
		Cubic Feet.	
Ontario—con.			
The Wm. Davies Co., Ltd.....	Toronto.....	{ 244,436 } Freezer Space	Meat.
Matthews Blackwell Co. The Harris Abattoir Co. Ltd.....	Toronto.....	362,000	Meat.
The Harris Abattoir Co. Ltd.....	Toronto.....	422,400	Meat and General.
*Municipal Abattoir.....	Toronto.....	384,000	Meat and General.
W. Wight & Co.....	Toronto.....	155,904	Meat and General.
The Bowes Co., Ltd....	Toronto.....	x	Meat.
The James Fish Co.....	Toronto.....	40,000	General Produce.
The Doyle Fish Co.....	Toronto.....	40,000	Fish.
Marshalls Limited.....	Toronto.....	25,000	Fish.
J. J. Fee.....	Toronto.....	40,000	General Produce.
W. T. McDonald.....	Toronto.....	30,000	General Produce.
		25,000	General Produce.
Manitoba—			
*Manitoba Cold Storage Co.....	Winnipeg.....	1,500,000	General.
Swift Canadian Co., Ltd.	Winnipeg.....	{ 87,520 } Freezer Space	Meat.
Swift Canadian Co., Ltd.	Winnipeg.....	{ 71,867 } Freezer Space	Meat.
Gordon-Ironside & Fares Co.....	Winnipeg.....	417,000	Meat.
Gallagher, Holman & Lafrance.....	Winnipeg.....	151,810	Meat.
Western Packing Co....	Winnipeg.....	48,000	Meat.
The Wm. Davies Co., Ltd.....	Winnipeg.....	{ 84,000 } Freezer Space	Meat.
The W. J. Guest Fish Co.	Winnipeg.....	30,000	Fish.
A. McDonald Co. Ltd..	Winnipeg.....	67,200	Produce.
Winnipeg Fish Co.....	Winnipeg.....	x	Fish.
Saskatchewan—			
Gordon-Ironside & Fares Co.....	Moosejaw.....	600,000	Meat.
Gordon-Ironside & Fares Co.....	Saskatoon.....	60,000	Meat.
Gordon-Ironside & Fares Co.....	Regina.....	75,000	Meat.
Regina Storage & For- warding Co.....	Regina.....	40,000	General Storage.
Northern Packing Co...	Prince Albert...	42,352	Meat and General Storage.
Alberta—			
Swift Canadian Co., Ltd.	Calgary.....	{ 33,457 } Freezer Space	Meat.
P. Burns & Co., Ltd....	Calgary.....	1,337,414	Meat and General.

NOTE—Those against which an asterisk (\*) is placed are Public Warehouses.

## PRODUCTION.

## 12.—Cold Storage Warehouses in Canada, 1917—concluded.

## (B) NON-SUBSIDIZED—concluded.

Name.	Place.	Refrigerated Space.	Principal Articles Stored.
Alberta—con.		Cubic Feet.	
Swift Canadian Co., Ltd.	Edmonton.....	{ 408,000 } Freezer Space	Meat and General.
P. Burns & Co., Ltd....	Edmonton.....	299,447	Meat and General.
Gainers, Ltd. ....	South Edmonton.	94,080	Meat.
Campbell, Wilson & Horne.....	Lethbridge.....	5,000	General.
British Columbia—			
Wallace Bros.....	Claxton.....	25,515	Fish only.
The Skeena River Fisheries.....	Hayport.....	108,000	Fish only.
*Nicola Valley Meat Market.....	Merritt.....	18,576	Meat.
Standard Fish & Fertilizer Co., Ltd.....	Pacofi.....	59,400	Fish.
*Knight Cold Storage Co.	Vernon.....	7,920	General.
*Columbia Cold Storage Co.....	New Westminster	250,000	Fish and General.
St. Mungo Packing Co..	New Westminster	40,000	Fish.
Cleeve Canning & Cold Storage Co.....	New Westminster	25,000	Fish.
Vancouver Prince Rupert Meat Co.....	New Westminster	250,000	Meat.
P. Burns & Co., Ltd....	Vancouver.....	700,000	Meat.
Canadian Fishing Co..	Vancouver.....	300,000	Fish only.
*Vancouver Ice & Cold Storage Co.....	Vancouver.....	700,000	General.
Vancouver Prince Rupert Meat Co.....	Vancouver.....	100,000	Meat.
Vancouver Prince Rupert Meat Co.....	Vancouver.....	60,000	Meat.
Swift Canadian Co., Ltd.	Vancouver.....	{ 110,115 } Freezer Space	Meat.
*The British Columbia Cold Storage Co.....	Victoria.....	35,000	General.
Vancouver Prince Rupert Meat Co.....	Victoria.....	50,000	Meat.
Swift Canadian Co., Ltd.	Victoria.....	{ 18,600 } Freezer Space	Meat.
Swift Canadian Co., Ltd.	Nelson.....	{ 6,726 } Freezer Space	Meat.
P. Burns & Co., Ltd....	Nelson.....	24,111	Meat and General.
Yukon Territory—			
*Pacific Cold Storage Co.	Dawson.....	44,900	Fish.
Total space in non-subsidized warehouses (Exclusive of space in 4 warehouses unreported marked x).....		19,755,865	
Total space in subsidized warehouses...		4,257,932	
Grand total.....		24,013,797	

NOTE.—Those against which an asterisk (\*) is placed are Public Warehouses.

## AGRICULTURE.

**Production of Flax Fibre in Ontario, 1916.**—According to information furnished by the Economic Fibre Production Division of the Dominion Experimental Farms, the area under flax grown for fibre in Ontario during 1916 was 5,200 acres. From this area were produced 300 tons of dressed flax fibre valued at \$600 per ton, or \$180,000; 75 tons of fine tow valued at \$200 per ton, or \$15,000; 100 tons of upholsterers' tow valued at \$50 per ton, or \$5,000, and 25,000 bushels of flaxseed valued at \$3 per bushel or \$75,000. In addition about 800 tons of flax straw, valued at \$15 per ton, or \$12,000, were held over. The crop of flax fibre produced in Ontario during 1916 was the poorest on record, late sowing and subsequent dry weather being responsible. About 20 p.c. of the flax fibre produced in Ontario is consumed at home; 20 p.c. is exported to Ireland and the balance to the United States. All the surplus flaxseed not needed for re-sowing in Ontario, and which was of good quality, was exported to Ireland. This amounted to some 10,000 bushels. There are small areas of flax grown for fibre in parts of Quebec and New Brunswick, but the production in Canada outside of Ontario is negligible.<sup>1</sup>

**Tobacco.**—The Tobacco Division of the Dominion Experimental Farms reported that the season of 1916 in Canada was not favourable for the growing of the tobacco plant as a whole, the summer being rather cool. The acreage was greatly curtailed owing to a very cold and wet June, which prevented the farmers in many instances from preparing the fields for the tobacco. In Ontario the average yield was greatly reduced owing to the larger acreage planted in flue-cured tobacco, which, as a rule, yields much less than 1,000 lb. to the acre, while the Burley yields from 1,200 to 1,500 lb. The acreage and yield of tobacco in Quebec and Ontario for the season of 1916, as compared with 1914 and 1915, were estimated as in Table 13.

13.—Estimated Areas and Yields of Tobacco in Canada, 1914-1916.

Provinces.	1914.	1915.	1916.	1914.	1915.	1916.	1914.	1915.	1916.
	acres.	acres.	acres.	lb.	lb.	lb.	lb. per acre.	lb. per acre.	lb. per acre.
Quebec.....	4,750	4,500	2,933	5,000,000	4,050,000	3,000,000	850	900	1,023
Ontario.....	5,000	9,000	2,958	5,000,000	4,950,000	2,943,000	1,200	1,000	1,000
Total.....	9,750	13,500	5,891	10,000,000	9,000,000	5,943,000	1,128	1,000	1,000

**Agricultural Instruction Act.**—Under the Agricultural Instruction Act, 1913 (3 Geo. V, c. 5), appropriations are annually payable by the Dominion Government to each of the Provincial Governments of Canada for the encouragement of agriculture "through education, instruction and demonstration carried on along lines well devised and of a continuous nature" and for the purpose of assisting in the work of veterinary colleges established in the provinces. The provincial allocation of the

<sup>1</sup>For the production of flax fibre in Ontario in 1915, see Y.B. 1915, p. 185.



## PRODUCTION.

payments under this Act for the four years 1914-15 to 1917-18 are shown in Table 14. A report on the Agricultural Instruction Act for the year 1915-16, dated December 31, 1916, was published as Sessional Paper, No. 15c, 1917.

**14.—Allocation of Payments to Provincial Governments under the Agricultural Instruction Act, 1914-15—1917-18.**

Provinces.	1914-15.	1915-16.	1916-17.	1917-18.
	\$	\$	\$	\$
Prince Edward Island.....	27,832.81	29,138.28	30,443.75	31,749.22
Nova Scotia.....	61,144.45	68,001.87	74,859.28	81,716.69
New Brunswick.....	49,407.20	54,308.40	59,209.60	64,110.80
Quebec.....	187,409.16	215,310.70	243,212.23	271,113.76
Ontario.....	230,868.83	266,013.64	301,158.45	336,303.26
Manitoba.....	58,075.45	64,421.31	70,767.21	77,113.11
Saskatchewan.....	61,152.31	68,011.04	74,869.76	81,728.48
Alberta.....	51,310.41	56,528.82	61,747.22	66,965.62
British Columbia.....	52,799.38	58,265.94	63,732.50	69,199.06
Veterinary Colleges.....	20,000.00	20,000.00	20,000.00	20,000.00
<b>Totals.....</b>	<b>800,000.00</b>	<b>900,000.00</b>	<b>1,000,000.00</b>	<b>1,100,000.00</b>

**Stocks of Grain in Canada.**—In 1915 and 1916 inquiries were instituted by the Census and Statistics Office, in co-operation with the Grain Inspection Division of the Department of Trade and Commerce, for the purpose of determining as nearly as possible the total quantity of wheat in Canada at a given time, the date being fixed for February 8 in 1915 and for March 31 in 1916. A similar inquiry, carried out for March 31, 1917, but extended to include oats, barley and flax as well as wheat, was conducted by means of schedules issued by the Census and Statistics Office to the managers of elevator, flour mill and railway companies, requesting the actual quantities of wheat, wheat flour, oats, oat-meal, rolled oats, barley meal, flax and linseed meal on hand or in transit on the morning of Saturday, March 31, 1917. The quantities of grain in the terminal elevators at Fort William and Port Arthur and in the interior terminal elevators of the Dominion Government at Calgary, Moosejaw, Saskatoon and Vancouver and of the Canadian Pacific Railway at Transcona, were furnished by the Board of Grain Commissioners for Canada. The grain in the eastern public elevators was ascertained, partly from schedules returned direct and partly from the returns published by the Grain Inspection Division of the Department of Trade and Commerce in the Weekly Bulletin of April 9, 1917. For the quantity of grain estimated to be in farmers' hands on March 31, use was made of the replies to the annual schedule addressed to the crop-reporting correspondents of the Census and Statistics Office.

In Table 15 the results are given of the compilation of the returns received for wheat, and wheat flour expressed as wheat, as compared with the results of the similar inquiry of March 31, 1916. In these tables the data respecting grain in farmers' hands on March 31, 1916 and 1917, have been corrected to correspond with the results of the Census of the Prairie Provinces, taken in 1916.

## AGRICULTURE.

## 15.—Stocks of Wheat in Canada on March 31, 1916 and 1917.

Wheat in—	March 31, 1916.	March 31, 1917.
	bushels.	bushels.
Terminal elevators.....	25,528,440	22,827,186
Hospital elevators.....	534,876	1,614,613
Winter storage in vessels.....	2,447,386	89,245
Interior terminal elevators of the Dominion Government:—		
Calgary.....	629,956	948,087
Moosejaw.....	2,820,523	1,843,987
Saskatoon.....	1,632,692	1,632,915
Vancouver.....	—	3,237
Interior terminal elevator of the C.P.R. at Transcona.....	633,327	740,016
Public elevators.....	3,326,417	2,516,461
Country elevators.....	43,996,131	30,549,209
Flour mills.....	5,277,196	4,884,825
Transit by rail.....	23,369,809	12,862,356
Farmers' hands.....	92,072,000	54,938,000
<b>Totals.....</b>	<b>202,268,753</b>	<b>135,450,137</b>

Adopting the simpler classification of elevators, flour mills, in transit by rail and in farmers' hands, the results of the inquiry for each of the three years 1915, 1916 and 1917, in respect of wheat are as shown in Table 16.

## 16.—Stocks of Wheat in Canada on February 8, 1915, and on March 31, 1916 and 1917.

Description.	February 8, 1915.	March 31, 1916.	March 31, 1917.
	bushels.	bushels.	bushels.
Elevators.....	30,843,877	81,549,748	62,764,956
Flour mills.....	6,160,840	5,277,196	4,884,825
In transit by rail.....	13,013,628	23,369,809	12,862,356
In farmers' hands.....	29,554,000	92,072,000	54,938,000
<b>Totals.....</b>	<b>79,572,345</b>	<b>202,268,753</b>	<b>135,450,137</b>

For oats, barley and flax, including quantities of oatmeal, rolled oats, barley meal and linseed meal, expressed as grain, the quantities returned as in Canada on March 31, 1917, were as in Table 17.

## PRODUCTION.

## 17.—Stocks of Oats, Barley and Flax in Canada on March 31, 1917.

Grain in—	Oats.	Barley.	Flax.
	bushels.	bushels.	bushels.
Terminal elevators .....	10,092,265	1,281,042	1,601,705
Hospital elevators.....	454,942	19,174	5,500
Winter storage in vessels .....	101,331	—	—
Interior terminal elevators of the Dominion Government—			
Calgary .....	1,254,259	114,727	13,649
Moosejaw .....	705,937	22,834	101,965
Saskatoon .....	569,343	29,487	121,812
Vancouver.....	56,719	—	—
Interior terminal elevator of the C.P.R. at Transcona .....	108,426	—	—
Public elevators.....	5,335,350	197,062	—
Country elevators .....	17,357,846	1,682,570	2,024,195
Flour mills .....	1,104,931	85,928	62,444
Transit by rail .....	10,279,581	879,460	318,004
Farmers' hands .....	162,389,000	10,997,000	1,638,000
<b>Total .....</b>	<b>209,809,930</b>	<b>15,309,284</b>	<b>5,887,274</b>
<b>RECAPITULATION.</b>			
Elevators.....	36,036,418	3,346,896	3,868,826
Flour mills.....	1,104,931	85,928	62,444
In transit by rail.....	10,279,581	879,460	318,004
In farmers' hands .....	162,389,000	10,997,000	1,638,000
<b>Totals .....</b>	<b>209,809,930</b>	<b>15,309,284</b>	<b>5,887,274</b>

The compilation of the returns actually received from elevators, flour mills, railway companies and crop correspondents shows that on March 31, 1917, the quantity in Canada of wheat, and wheat flour expressed as wheat, was in round figures 135,450,000 bushels, as compared with 202,269,000 bushels on March 31st, 1916, and 79,600,000 bushels on February 8, 1915. The total for 1917 includes 67,650,000 bushels in the elevators, flour mills and in winter storage in vessels, 54,938,000 bushels in farmers' hands and 12,862,000 bushels in transit by rail. Of oats, including oat products expressed as oats, the total quantity in Canada on March 31, 1917, was about 209,800,000 bushels, comprising 37,100,000 bushels in elevators and flour mills, 162,400,000 bushels in farmers' hands and 10,300,000 bushels in transit by rail. Of barley the total quantity in Canada on March 31, 1917, was about 15,309,000 bushels, of which 3,433,000 bushels were in elevators, etc., 10,997,000 bushels in farmers' hands and 879,000 bushels in transit by rail. Of flaxseed the total quantity in Canada on March 31, 1917, was 5,887,000 bushels, including 3,931,000 bushels in elevators and mills, 318,000 bushels in transit and 1,638,000 bushels in farmers' hands.

**Prices of Canadian Agricultural Produce.**—Tables 18-28 consist of records of average prices of Canadian agricultural produce. Tables 18-22, furnished by the Board of Grain Commissioners for Canada, show the weekly range of the prices of different grades of wheat, barley oats and flax at Winnipeg and Fort William; these prices are for the





# AVERAGE MONTHLY PRICES PER BUSHEL OF CANADIAN WHEAT, BARLEY, OATS AND FLAX, 1915 AND 1916.



The horizontal lines indicate prices from 40 cents to \$2.70. The two higher black wheat curves indicate the average monthly prices per bushel of Wheat (a) at Winnipeg and Fort William (No. 1 Nor.) and (b) at Mark Lane, London, England, the lower red curve of Barley at Winnipeg and Fort William (No. 3, C.W.), the two lower black curves of Oats (a) at Winnipeg and Fort William (No. 2, C.W.) and (b) at Mark Lane, London, England, and the higher red curve of Flax (No. 1, N.W.C.) at Winnipeg and Fort William. (Wheat 60, Barley 48, Oats 34 and Flax 56 lb. per bushel.)

## AGRICULTURE.

weeks ended Saturday. Table 23 gives the prices quoted for Canadian wheat, wheat flour and oats in British markets. The prices are compiled from the Market Supplements of the *Mark Lane Express*, London, England, and represent the range at the weekly Monday market. Tables 25 and 27 give the prices in British markets of Canadian bacon, hams and cheese: they are taken from the official returns of the English and Scottish Boards of Agriculture and represent, not the range, but the first and second qualities respectively. For the purposes of these tables the English currency, weights and measures have been converted into Canadian equivalent denominations. Tables 19, 22, 24, 26 and 28, have been constructed from previous weekly records in recent editions of the Year Book for the purpose of comparing the average monthly prices of agricultural produce during the past three or four years. Tables 19 and 22 give these prices for the three years 1914-16 in respect of wheat, barley, oats and flax at Winnipeg and Fort William and Tables 24, 26 and 28 give the prices in British markets of Canadian produce (wheat, flour, oats, bacon, hams and cheese) for the four years 1913-16. The diagram facing page 217 illustrates the monthly price movement of wheat, barley, oats and flax during the two years 1915 and 1916.

## 18.—Weekly Range of Prices of Wheat at Winnipeg and Fort William, 1916.

(Per bushel of 60 lb.)

Date.	No. 1. Northern.	No. 2. Northern.	No. 3. Northern.	No. 4.	No. 5.	No. 6.	Feed.
1916	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January 1....	1.13½-1.15½	1.10½-1.13	1.05½-1.08½	1.02½-1.04½	0.93½-0.95½	0.83½-0.85½	0.73½-0.75½
" 8....	1.13-1.16	1.10½-1.13½	1.05½-1.09½	1.02-1.06½	0.93-0.98	0.83-0.88	0.73-0.78
" 15....	1.15½-1.20	1.12½-1.17½	1.09½-1.14½	1.05½-1.10½	0.97½-1.02½	0.87½-0.92½	0.77½-0.82½
" 22....	1.21½-1.27	1.19½-1.24½	1.16½-1.22½	1.12-1.17	1.05-1.10½	0.95-1.03½	0.85-0.96½
" 29....	1.26½-1.29½	1.23½-1.27½	1.21½-1.25½	1.17½-1.21½	1.10½-1.14½	1.04½-1.08½	0.97½-1.01½
Average.....	1.17½-1.21½	1.15½-1.19½	1.11½-1.16½	1.07½-1.12	0.99½-1.04½	0.90½-0.95½	0.81½-0.86½
February 5....	1.23½-1.27½	1.21½-1.25½	1.18½-1.22½	1.14½-1.18½	1.07½-1.11½	1.01½-1.06½	0.94½-0.98½
" 12....	1.22½-1.25½	1.20½-1.22½	1.17½-1.20½	1.15½-1.16½	1.06½-1.08½	1.00½-1.02½	0.93½-0.95½
" 19....	1.23½-1.26½	1.21-1.24	1.18-1.21½	1.14-1.17	1.07-1.09½	1.00½-1.03½	0.93½-0.96½
" 26....	1.11-1.22½	1.08½-1.15½	1.06-1.17½	1.02½-1.13½	0.94½-1.06	0.88½-1.00	0.82½-0.94
Average.....	1.20½-1.25½	1.17½-1.22½	1.15-1.20½	1.11½-1.16½	1.03½-1.08½	0.97½-1.03½	0.91-0.96½
March 4....	1.05½-1.11½	1.02½-1.08½	1.00½-1.06½	0.99½-1.03½	0.91½-0.94½	0.84½-0.87½	- -
" 11....	1.08½-1.13½	1.05½-1.10½	1.03½-1.08½	1.00½-1.05½	0.91½-0.96½	0.84½-0.89½	- -
" 18....	1.06-1.09½	1.03-1.06½	1.01-1.04½	0.98-1.01½	0.89-0.92½	0.76-0.80½	- -
" 25....	1.07½-1.08½	1.05-1.05½	1.02½-1.03½	0.96½-1.00½	0.90½-0.91½	0.76½-0.77½	- -
Average.....	1.06½-1.10½	1.04½-1.07½	1.01½-1.05½	0.99½-1.02½	0.90½-0.93½	0.80½-1.03½	- -
April 1....	1.09-1.14½	1.06½-1.12½	1.03½-1.09½	1.00½-1.07½	0.91½-0.98½	0.83½-0.90½	0.78½-0.85½
" 8....	1.12½-1.19	1.10½-1.16½	1.07-1.13	1.04½-1.11	0.96½-1.02½	0.88½-0.94½	0.83½-0.89½
" 15....	1.13½-1.16½	1.11½-1.14	1.07½-1.10½	1.05-1.07½	0.96½-0.99½	0.88½-0.91½	0.83½-0.86½
" 22....	1.13½-1.14½	1.11-1.13	1.07½-1.09	1.05½-1.06½	0.96½-0.97½	0.88½-0.89½	0.83½-0.84½
" 29....	1.13½-1.17½	1.11½-1.14½	1.07½-1.10½	1.05½-1.08½	0.97½-1.00½	0.89½-0.93½	0.84½-0.87½
Average.....	1.12½-1.16½	1.10½-1.14½	1.06½-1.10	1.04½-1.08½	0.95½-0.99½	0.87½-0.91½	0.82½-0.86½
May 6....	1.16½-1.19½	1.14-1.17½	1.09½-1.13½	1.06-1.10	0.98-1.02	0.91-0.95½	- -
" 13....	1.18½-1.20½	1.16½-1.18½	1.12½-1.14½	1.08½-1.10½	1.00½-1.02½	0.93½-0.95½	0.86½-0.91½
" 20....	1.15-1.19½	1.12½-1.17½	1.09½-1.14	1.04½-1.09½	0.98½-1.02½	0.92-0.95½	0.87-0.91½
" 27....	1.13-1.16½	1.11½-1.15½	1.07½-1.10½	1.02½-1.05½	0.96½-0.99½	0.91-0.94½	0.85-0.88½
Average.....	1.15½-1.19½	1.13½-1.17½	1.09½-1.12½	1.05½-1.08½	0.98½-1.01½	0.91½-0.95½	0.86½-0.90½

## PRODUCTION.

18.—Weekly Range of Prices of Wheat at Winnipeg and Fort William,  
1916—concluded.

(Per bushel of 60 lb.)

Date.	No. 1 Northern.	No. 2. Northern.	No. 3. Northern.	No. 4.	No. 5.	No. 6.	Feed.
1916	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
June 3....	1.09½-1.13½	1.08½-1.11½	1.04½-1.06½	0.99½-1.02	0.93½-0.96	0.88-0.90½	0.82-0.84½
" 10....	1.09½-1.13½	1.08½-1.13	1.04½-1.08½	0.99½-1.03½	0.93½-0.97½	0.88½-0.92½	0.82½-0.87½
" 17....	1.09½-1.10½	1.08½-1.09½	1.03½-1.05½	0.98½-1.00½	0.91½-0.94½	0.88½-0.90½	0.82½-0.86½
" 24....	1.10-1.11½	1.08½-1.10½	1.04½-1.06	0.99½-1.00½	0.92½-0.94½	0.89½-0.91½	0.83½-0.85½
Average.....	1.09½-1.12½	1.08½-1.11½	1.04½-1.06½	0.99½-1.01½	0.93-0.95½	0.88½-0.91½	0.82½-0.86½
July 1....	1.10½-1.11½	1.09-1.10	1.05½-1.08½	0.99½-1.01	0.94½-0.95½	0.90½-0.91½	0.85½-0.86½
" 8....	1.12-1.14½	1.10½-1.13½	1.07½-1.10	1.01½-1.04½	0.95½-0.98½	0.91½-0.94½	0.85½-0.89½
" 15....	1.14½-1.17½	1.12½-1.15½	1.09½-1.12½	1.04-1.06½	0.97½-1.00½	0.94½-0.97½	0.90½-0.93½
" 22....	1.15½-1.19½	1.13½-1.17½	1.10½-1.13½	1.05-1.09½	0.99-1.03	0.96½-	0.92½-
" 29....	1.20½-1.26½	1.18-1.24½	1.13½-1.20	1.10½-1.16½	1.05½-	1.01½-	-
Average.....	1.14½-1.17½	1.12½-1.16	1.09½-1.12½	1.04½-1.07½	0.98½-0.99½	0.95-0.94½	0.88½-0.89½
August 5....	1.25½-1.39	1.23½-1.36½	1.18½-1.32½	1.14½-1.28½	1.09½-1.22½	1.01½-1.13	0.97½-1.07½
" 12....	1.37½-1.52½	1.35½-1.49½	1.31½-1.45½	1.27½-1.41½	1.21½-1.35½	-1.23½	-1.18½
" 19....	1.44½-1.55½	1.42½-1.52½	1.37-1.48	1.29½-1.41½	1.25½-1.36½	1.14½-1.23½	1.09½-1.18½
" 26....	1.57½-1.61½	1.55½-1.59½	1.51½-1.55½	1.44½-1.48½	1.38½-1.42½	1.28½-1.32½	1.21½-1.25½
Average.....	1.41½-1.42	1.39½-1.49½	1.34½-1.45½	1.29½-1.39½	1.23½-1.34½	1.15-1.23½	1.09½-1.17½
September 2....	1.50½-1.57½	1.50-1.55½	1.46-1.50½	1.37½-1.43½	1.32½-1.38½	1.22½-1.26½	1.15½-1.19½
" 9....	1.61½-1.64½	1.58½-1.62½	1.55½-1.59½	1.48½-1.52½	1.40½-1.45½	1.17-1.21½	1.11-1.14½
" 16....	1.56½-1.61½	1.55½-1.59½	1.52½-1.53½	1.44½-1.50½	1.35½-1.41½	1.14½-1.17½	0.96½-1.03½
" 23....	1.57-1.64½	1.54-1.60½	1.51½-1.58½	1.45½-1.53½	1.36½-1.44½	1.17½-1.31½	0.97½-1.10½
" 30....	1.61½-1.61½	1.58½-1.62½	1.54½-1.60½	1.47½-1.54½	1.41½-1.46½	1.34½-1.34½	1.04½-1.12½
Average.....	1.57½-1.62½	1.55½-1.60½	1.52-1.56½	1.44½-1.50½	1.37½-1.43½	1.21½-1.26½	1.05-1.12½
October 7....	1.65½-1.70	1.62½-1.66½	1.57½-1.62	1.50½-1.52	1.44½-1.48½	1.31½-1.35	1.03½-1.10
" 14....	1.64½-1.68½	1.61½-1.66½	1.56½-1.60½	1.44-1.50½	1.37½-1.42½	1.26½-1.31½	1.04-1.09½
" 21....	1.64½-1.78½	1.61½-1.75½	1.56½-1.70½	1.44½-1.60½	1.37½-1.45½	1.26½-1.30½	1.04-1.20
" 28....	1.81½-1.89	1.78½-1.85½	1.73½-1.80½	1.64½-1.71½	1.48½-1.56½	1.42½-1.44	1.23½-1.29½
Average.....	1.68½-1.76½	1.65½-1.76½	1.60½-1.68½	1.51-1.58½	1.41½-1.48½	1.31½-1.37½	1.08½-1.17½
November 4....	1.82½-1.88½	1.79½-1.85	1.74½-1.79½	1.64½-1.70	1.50½-1.56½	1.36½-1.39½	1.18½-1.26½
" 11....	1.92½-2.00½	1.88½-1.96½	1.83½-1.91½	1.73-1.78½	1.59½-1.63½	1.43-1.39½	1.25½-
" 18....	1.92½-2.01½	1.87½-1.96½	1.82-1.91½	1.65½-1.75½	1.50-1.63½	-	1.05-1.08
" 25....	1.90-2.05	1.87-2.01	1.82-1.96	1.60½-1.77½	1.48½-1.64	-	1.00-1.09
Average.....	1.89½-1.98½	1.85½-1.93½	1.80½-1.89½	1.68½-1.75½	1.52½-1.62½	1.39½-1.39½	1.12½-1.14½
December 2....	1.80½-1.91½	1.77½-1.88	1.72½-1.83	1.58½-1.67½	1.35½-1.46½	0.98½-1.10½	0.90-1.00
" 9....	1.77½-1.88½	1.74½-1.86½	1.68½-1.79½	1.55½-1.67½	1.31½-1.38½	0.96½-1.06½	0.90-0.92
" 16....	1.58½-1.83	1.55½-1.80	1.49½-1.75	1.34½-1.63	1.06½-1.32	0.79½-0.90	0.73-0.83
" 23....	1.64-1.71½	1.60½-1.68½	1.55½-1.63½	1.43½-1.52½	1.18½-1.28½	0.88½-1.01½	0.75-0.88
" 30....	1.72½-1.76	1.69½-1.73	1.64½-1.68	1.48½-1.56½	1.28½-1.34	1.04½-1.06	0.85-0.90
Average.....	1.70½-1.82	1.67½-1.79½	1.62½-1.73½	1.48½-1.61½	1.24½-1.35½	0.93½-1.02½	0.82½-0.90½

## AGRICULTURE.

19.—Monthly Range of Average Prices of Wheat at Winnipeg and Fort William,  
1914-1916.

(Per bushel of 60 lb.)

Date.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	Feed.
Averages for—	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January .... 1914	0.84½-0.85½	0.82½-0.83½	0.80-0.81½	0.74½-0.76	0.68½-0.69½	0.64½-0.64½	0.58½-0.59½
" ..... 1915	1.32½-1.39	1.30½-1.36	1.26½-1.33½	1.23½-1.29½	1.19½-1.25½	1.14½-1.21½	1.10½-1.16½
" ..... 1916	1.17½-1.21½	1.15½-1.19½	1.11½-1.16½	1.07½-1.12	0.99½-1.04½	0.90½-0.95½	0.81½-0.86½
February... 1914	0.88½-0.89½	0.86½-0.87½	0.84½-0.86	0.80½-0.81½	0.73-0.74½	0.68-0.69½	0.62½-0.63½
" ..... 1915	1.45-1.55½	1.47½-1.53½	1.45-1.56	1.41-1.45½	1.37-1.41½	1.32½-1.37½	1.31½-1.32½
" ..... 1916	1.20½-1.25½	1.17½-1.22½	1.15-1.20½	1.11½-1.16½	1.03½-1.08½	0.97½-1.03½	0.91-0.96½
March ..... 1914	0.90-0.90½	0.88½-0.89½	0.86½-0.87½	0.82½-0.83½	0.79½-0.80½	0.74½-0.75½	0.69½-0.70½
" ..... 1915	1.44½-1.51½	1.43½-1.49½	1.40½-1.46½	1.35½-1.41½	1.30½-1.37½	1.26½-1.33½	1.21½-1.29½
" ..... 1916	1.06½-1.10½	1.04½-1.07½	1.01½-1.05½	0.99½-1.02½	0.90½-0.93½	0.80½-1.03½	-
April ..... 1914	0.88½-0.90½	0.87½-0.88½	0.85½-0.86½	0.82½-0.83½	0.78½-0.79½	0.73½-0.74½	0.68½-0.69½
" ..... 1915	1.51½-1.56½	1.49½-1.55½	1.45½-1.52½	1.39½-1.49½	1.40-1.43½	1.35½-1.39½	1.27½-1.29
" ..... 1916	1.12½-1.16½	1.10½-1.14½	1.06½-1.10½	1.04½-1.08½	0.95½-0.99½	0.87½-0.91½	0.82½-0.86½
May ..... 1914	0.93-0.94½	0.91½-0.93½	0.89½-0.91½	0.85½-0.87½	0.79½-0.79½	0.74½-0.74½	0.69½-0.69½
" ..... 1915	1.57½-1.62	1.54½-1.59½	1.50½-1.56½	1.41½-1.52½	1.41½-1.47½	1.36½-1.42½	1.30½-1.36½
" ..... 1916	1.15½-1.19½	1.13½-1.17½	1.09½-1.12½	1.05½-1.08½	0.98½-1.01½	0.91½-0.95½	0.86½-0.90½
June ..... 1914	0.91½-0.93½	0.90½-0.92½	0.89-0.90½	0.84½-0.86½	0.80½-0.82½	0.75½-0.75½	0.70½-0.70½
" ..... 1915	1.21½-1.31½	1.21½-1.32	1.18½-1.24½	1.13½-1.19½	1.06½-1.16½	1.01½-1.09½	1.14½-1.23½
" ..... 1916	1.09½-1.12½	1.08½-1.11½	1.04½-1.06½	0.99½-1.01½	0.93-0.95½	0.88½-0.91½	0.82½-0.86½
July ..... 1914	0.89-0.96½	0.87½-0.89	0.85½-0.86½	0.80½-0.83½	-	-	-
" ..... 1915	1.30½-1.37½	1.27½-1.34½	1.23½-1.30	1.14½-1.22½	- 1.18	- 1.10	-
" ..... 1916	1.14½-1.17½	1.12½-1.16	1.09½-1.12½	1.04½-1.07½	0.98½-0.99½	0.95-0.94½	0.88½-0.89½
August .... 1914	1.01½-1.10½	0.99½-1.08½	0.94½-1.03½	0.90½-0.93½	0.91½-0.93½	-	-
" ..... 1915	1.14½-1.18	1.11½-1.21½	1.18-1.27	1.13½-1.18½	1.04½-1.10	1.00-1.00	-
" ..... 1916	1.41½-1.42	1.39½-1.49½	1.34½-1.45½	1.29½-1.39½	1.23½-1.34½	1.15-1.23½	1.09½-1.17½
September 1914	1.09½-1.15½	1.06½-1.12½	1.03-1.08½	0.97½-1.02½	0.90½-0.95½	0.87½-0.84½	0.78½-0.79½
" ..... 1915	0.91½-0.95½	0.90-0.93½	0.87½-0.90½	0.81½-0.84½	0.77½-0.79½	-	-
" ..... 1916	1.57½-1.62½	1.55½-1.60½	1.52-1.56½	1.44½-1.50½	1.37½-1.43½	1.21½-1.26½	1.05-1.12½
October ... 1914	1.10-1.13½	1.06½-1.09½	1.01½-1.04½	0.95½-0.99	0.91-0.94½	0.86½-0.89½	0.81½-0.85½
" ..... 1915	0.94½-0.99½	0.92½-0.96½	0.89½-0.94½	0.85½-0.89	0.79½-0.85½	0.74½-0.79½	0.69½-0.74½
" ..... 1916	1.68½-1.76½	1.65½-1.76½	1.60½-1.68½	1.51-1.58½	1.41½-1.48½	1.31½-1.37	1.08½-1.17½
November 1914	1.17½-1.20½	1.14½-1.17½	1.09½-1.12½	1.04½-1.07½	1.06½-1.02½	0.95-0.98½	0.90½-0.94
" ..... 1915	1.01½-1.04½	0.98½-1.01½	0.94½-0.97½	0.89½-0.92½	0.83-0.84½	0.77½-0.79½	0.73-0.74½
" ..... 1916	1.89½-1.98½	1.85½-1.93½	1.86½-1.89½	1.68½-1.75½	1.52½-1.62½	1.39½-1.39½	1.12½-1.14½
December.. 1914	1.17½-1.19½	1.14½-1.16½	1.09½-1.11½	1.05½-1.07½	1.00½-1.03½	0.96½-0.98½	0.92-0.94
" ..... 1915	1.06½-1.12	1.04½-1.09	1.06½-1.05½	0.96-1.02½	0.91½-0.96½	0.84½-	0.75½-
" ..... 1916	1.70½-1.82	1.67½-1.79½	1.62½-1.73½	1.48½-1.61½	1.24½-1.35½	0.93½-1.02½	0.82½-0.90½



## PRODUCTION.

20.—Weekly Range of Prices of Oats at Winnipeg and Fort William, 1916.

Date.	No. 2 C.W.	No. 3 C.W.	No. 1 Feed Ex.	No. 1 Feed.	No. 2 Feed.
1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January 1.....	0.39 -0.40	0.36 -0.37	0.36 -0.37	0.35 -0.35½	0.34 -0.34½
" 8.....	0.39½ -0.41½	0.36½ -0.38½	0.36½ -0.38½	0.35 -0.37½	0.34 -0.36½
" 15.....	0.41½ -0.44	0.38½ -0.41½	0.38½ -0.41	0.37½ -0.40½	0.36½ -0.39½
" 22.....	0.45½ -0.46½	0.42½ -0.44½	0.41½ -0.44	0.41½ -0.43½	0.40½ -0.42½
" 29.....	0.46½ -0.47½	0.43½ -0.44½	0.43½ -0.44	0.42½ -0.43½	0.41½ -0.42½
Average.....	0.42 -0.44	0.39½ -0.41	0.39 -0.41½	0.38½ -0.40½	0.37½ -0.39½
February 5.....	0.43½ -0.45	0.41 -0.42½	0.41 -0.42½	0.40 -0.41½	0.39 -0.40½
" 12.....	0.41½ -0.43½	0.39½ -0.41½	0.39½ -0.41½	0.38½ -0.40	0.37½ -0.39
" 19.....	0.43½ -0.44½	0.40½ -0.42½	0.40½ -0.42½	0.39½ -0.40½	0.38½ -0.39½
" 26.....	0.39½ -0.42½	0.37½ -0.40½	0.37½ -0.40½	0.36½ -0.39	0.35½ -0.38
Average.....	0.42½ -0.44	0.39½ -0.41½	0.39½ -0.41½	0.38½ -0.40½	0.37½ -0.39½
March 4.....	0.37½ -0.39½	0.35½ -0.37½	0.35½ -0.37½	0.34½ -0.35½	0.33½ -0.34½
" 11.....	0.39½ -0.40½	0.37½ -0.38½	0.37½ -0.38½	0.35½ -0.36½	0.34½ -0.35½
" 18.....	0.40½ -0.42½	0.38½ -0.40½	0.38½ -0.40½	0.37 -0.38½	0.36½ -0.38½
" 25.....	0.41½ -0.42½	0.39½ -0.40½	0.39½ -0.40½	0.37½ -0.38½	0.37½ -0.38½
Average.....	0.39½ -0.41½	0.37½ -0.39½	0.37½ -0.39½	0.36 -0.37½	0.35½ -0.37
April 1.....	0.41½ -0.42½	0.39½ -0.40½	0.39½ -0.40½	0.37½ -0.38½	0.37½ -0.38½
" 8.....	0.42½ -0.42½	0.40½ -0.40½	0.40½ -0.40½	0.38½ -0.39½	0.37½ -0.39½
" 15.....	0.42 -0.43½	0.40½ -0.41½	0.40½ -0.41½	0.38½ -0.40½	0.38½ -0.40½
" 22.....	0.44½ -0.46½	0.42½ -0.44½	0.42½ -0.44½	0.41½ -0.43½	0.40½ -0.42½
" 29.....	0.45½ -0.46½	0.43½ -0.44½	0.43½ -0.44½	0.42½ -0.43	0.41½ -0.42
Average.....	0.43½ -0.44½	0.41½ -0.42½	0.41½ -0.42½	0.39½ -0.41	0.39½ -0.41
May 6.....	0.46½ -0.47	0.44½ -0.45	0.44½ -0.45	0.43½ -0.44½	0.42½ -0.43½
" 13.....	0.46½ -0.47½	0.44½ -0.46	0.44½ -0.45½	0.44 -0.45½	0.43 -0.44½
" 20.....	0.47½ -0.47½	0.46 -0.46½	0.46 -0.46½	0.45½ -0.45½	0.44½ -0.44½
" 27.....	0.46½ -0.48½	0.46½ -0.47½	0.45½ -0.47½	0.44½ -0.46½	0.42½ -0.45½
Average.....	0.46½ -0.47½	0.55 -0.46	0.45 -0.46½	0.44½ -0.45½	0.43 -0.44
June 3.....	0.45½ -0.46½	0.44½ -0.44½	0.44½ -0.44½	0.43½ -0.43½	0.41 -0.41½
" 10.....	0.45½ -0.47	0.44½ -0.46½	0.44½ -0.46½	0.43½ -0.45½	0.41½ -0.43½
" 17.....	0.46½ -0.48½	0.44½ -0.47	0.44½ -0.46½	0.43½ -0.45½	0.42½ -0.43½
" 24.....	0.45½ -0.47	0.45½ -0.46½	0.44½ -0.46	0.43½ -0.45	0.42½ -0.43½
Average.....	0.45½ -0.47½	0.44½ -0.46	0.44½ -0.46	0.43½ -0.45	0.41½ -0.43
July 1.....	0.46½ -0.46½	0.45½ -0.46½	0.44½ -0.45½	0.43½ -0.44½	0.42½ -0.42½
" 8.....	0.44 -0.45½	0.43½ -0.45	0.43 -0.44½	0.43 -0.43½	0.41½ -0.42½
" 15.....	0.44½ -0.45½	0.43½ -0.44½	0.43½ -0.44½	0.43½ -0.44½	0.41½ -0.43½
" 22.....	0.43½ -0.45½	0.43 -0.44½	0.42½ -0.44½	0.43½ -0.44½	0.41½ -0.43
" 29.....	0.44½ -0.44½	0.44½ -0.44½	0.43 -0.43½	0.43½ -0.43½	0.42½ -0.42½
Average.....	0.44½ -0.45½	0.44 -0.45	0.43½ -0.44½	0.43½ -0.44½	0.42 -0.43
August 5.....	0.44½ -0.48½	0.43 -0.47½	0.42½ -0.47½	0.42 -0.46½	0.42 -0.46½
" 12.....	0.48½ -0.50½	0.47½ -0.49½	0.47½ -0.49½	0.47 -0.49½	0.46½ -0.48½
" 19.....	0.48½ -0.50½	0.46½ -0.49½	0.46½ -0.49½	0.45½ -0.49	0.45 -0.48½
" 26.....	0.50½ -0.51½	0.49½ -0.51½	0.49½ -0.51½	0.49½ -0.50½	0.48½ -0.49½
Average.....	0.48 -0.50½	0.47½ -0.49½	0.56½ -0.49½	0.36 -0.48½	0.45½ -0.48½

## AGRICULTURE.

20.—Weekly Range of Prices of Oats at Winnipeg and Fort William, 1916.  
—concluded.

Date.	No. 2 C.W.	No. 3 C.W.	No. 1 Feed Ex.	No. 1 Feed.	No. 2 Feed.
1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
September 2.....	0.49½-0.50½	0.49-0.49½	0.49-0.49½	0.48-0.48½	0.47½-0.48½
" 9.....	0.51½-0.51½	0.50½-0.50½	0.50½-0.50½	0.49½-0.50½	0.49½-0.50
" 16.....	0.49½-0.50½	0.48½-0.49½	0.48½-0.49½	0.48½-0.49½	0.47½-0.48½
" 23.....	0.50½-0.54½	0.49½-0.53½	0.49½-0.53½	0.48½-0.53½	0.48½-0.52½
" 30.....	0.53-0.54½	0.52½-0.54½	0.52½-0.54	0.52-0.53½	0.51½-0.53
Average.....	0.51-0.52½	0.50-0.51½	0.49½-0.51½	0.49½-0.50½	0.50-0.50½
October 7.....	0.53½-0.55½	0.53-0.54½	0.53-0.54½	0.52½-0.54½	0.52½-0.54½
" 14.....	0.52½-0.55½	0.51½-0.54½	0.51½-0.54½	0.50½-0.54½	0.50½-0.54
" 21.....	0.52-0.56½	0.50½-0.55½	0.50½-0.55½	0.50½-0.54½	0.49½-0.54½
" 28.....	0.58-0.61½	0.56½-0.60½	0.56½-0.59½	0.56½-0.59½	0.55½-0.60½
Average.....	0.54½-0.57½	0.53-0.56½	0.53-0.56½	0.52-0.55½	0.52-0.55½
November 4.....	0.58-0.62½	0.56½-0.58½	0.56½-0.58½	0.56-0.58	0.55½-0.57½
" 11.....	0.61½-0.67½	0.59½-0.66	0.59½-0.66	0.59½-0.65½	0.59½-0.65½
" 18.....	0.65-0.67½	0.63½-0.66½	0.63½-0.66½	0.63-0.65½	0.62½-0.65½
" 25.....	0.63½-0.66½	0.62½-0.65	0.62½-0.65	0.61½-0.64½	0.61-0.63½
Average.....	0.62½-0.66	0.60½-0.64	0.60½-0.64	0.60½-0.64½	0.59½-0.63
December 2.....	0.58½-0.62½	0.56½-0.61½	0.56½-0.61½	0.56½-0.60½	0.55½-0.59½
" 9.....	0.57-0.59½	0.54½-0.57	0.54½-0.57	0.54½-0.56½	0.52½-0.54½
" 16.....	0.50½-0.56	0.47½-0.53½	0.47½-0.53½	0.45½-	0.44½-
" 23.....	0.51-0.54½	0.48½-0.51½	0.48½-0.51½	0.46½-0.49½	0.45½-0.48
" 30.....	0.53½-0.55½	0.50½-0.52½	0.50½-0.52½	0.49½-	0.48½-
Average.....	0.54½-0.57½	0.51½-0.55½	0.51½-0.54½	0.50½-0.55½	0.49½-0.54½

## 21.—Weekly Range of Prices of Barley and Flax at Winnipeg and Fort William, 1916.

Date.	Barley (per bushel of 48 lb.).				Flax (per bushel of 56 lb.).	
	No. 3 C.W.	No. 4 C.W.	Rejected.	Feed.	No. 1 N.W.C.	No. 2 C.W.
1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January 1....	-	-	0.49	-	1.89-1.93	1.86-1.90
" 8....	0.61-0.63	0.56-0.58	0.48-0.49	0.48-0.49	1.92½-2.03	1.89½-2.00
" 15....	0.61½-0.64	0.56½-0.59	0.49-0.52	0.49-0.52	2.04-2.17	2.04-2.14
" 22....	0.64½-0.69½	0.59-0.65	0.54-0.55	0.52-0.55	2.12½-2.19½	2.09½-2.16½
" 29....	0.67-0.69½	0.62-0.65	0.53½-0.55	0.53-0.55	2.10½-2.17	2.07½-2.14
Average.....	0.63½-0.66½	0.58½-0.61½	0.50½-0.52½	0.50½-0.52½	2.01½-2.10	1.99½-2.07
February 5....	0.65-0.67	0.60-0.62	0.55-0.56	0.51-0.56	2.04½-2.09	2.01½-2.06
" 12....	0.68-0.69	0.63-0.64	0.56-0.58	0.56-0.58	2.03½-2.08½	2.00½-2.05½
" 19....	0.68-0.68½	0.62-0.63	0.57-0.57½	0.57-0.57½	2.09-2.10½	2.06-2.07½
" 26....	0.62½-0.65	0.57½-0.60	0.52½-0.55	0.52½-0.55	2.02½-2.08½	1.99½-2.05½
Average.....	0.65½-0.67½	0.60½-0.62½	0.55½-0.56½	0.54½-0.56½	2.04½-2.09	2.01½-2.06
March 4....	0.60	0.55	0.50	0.50	1.99½-2.04	1.96½-2.01
" 11....	0.61	0.56	0.51	0.51	2.05-2.06½	2.02-2.03½
" 18....	0.59-0.60	0.54-0.55	0.50-0.51½	0.50-0.51½	2.02½-2.05½	1.99½-2.02½
" 25....	0.58-0.59	0.53½-0.54	0.50-0.51½	0.50-0.51½	1.90½-2.03½	1.87½-2.00½
Average.....	0.59½-0.59½	0.54½-0.54½	0.50½-0.51	0.50½-0.51½	1.99½-2.04½	1.96½-2.02
April 1....	0.58-0.61	0.53½-0.56	0.50-0.52	0.50-0.52	1.91½-1.93	1.88½-1.90
" 8....	0.59-0.62½	0.54-0.57½	0.49-0.52½	0.49-0.52½	1.84½-1.94	1.81½-1.91
" 15....	0.59-0.63	0.54-0.58	0.50-0.55	0.50-0.55	1.82½-1.91	1.79½-1.88
" 22....	0.62-0.63	0.57-0.58	0.55	0.55	1.86½-1.89½	1.83½-1.86½
" 29....	0.61-0.66	0.56-0.61	0.54-0.57	0.54-0.57	1.77½-1.85½	1.71½-1.80½
Average.....	0.59½-0.63½	0.54½-0.58½	0.51½-0.54½	0.51½-0.54½	1.85½-1.90½	1.80½-1.88½

## PRODUCTION.

21.—Weekly Range of Prices of Barley and Flax at Winnipeg and Fort William, 1916—concluded.

Date.	Barley (per bushel of 48 lb.).				Flax (per bushel of 56 lb.).	
	No. 3 C.W.	No. 4 C.W.	Rejected.	Feed.	No. 1 N.W.C.	No. 2 C.W.
1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
May 6....	0.65 -0.67	0.60 -0.62½	0.55 -0.58	0.51 -0.58	1.70½-1.80½	1.67½-1.77½
" 13....	0.67½-0.68	0.63 -	0.58 -	0.58 -	1.69½-1.74½	1.66½-1.71½
" 20....	0.67 -0.68½	0.62 -0.63	0.55 -0.58	0.55 -0.58	1.57½-1.72	1.62 -1.69
" 27....	0.67½-0.68½	0.62 -0.63	0.55 -	0.55 -	1.59½-1.66½	1.56 -1.63½
Average.....	0.66½-0.68	0.61½-0.62½	0.55½-0.58	0.54½-0.58	1.66½-1.73½	1.62½-1.70½
June 3....	0.65 -	0.60 -	0.53 -	0.53 -	1.58½-1.66½	1.55½-1.63
" 10....	0.65 -0.67	0.60 -0.62	0.53 -0.58	0.53 -0.58	1.58½-1.63½	1.55½-1.60½
" 17....	0.66 -0.67½	0.61½-0.62½	0.58 -0.58½	0.58 -0.58½	1.57½-1.59½	1.54½-1.56½
" 24....	0.67½-0.68½	0.62½-0.63½	0.58 -0.59½	0.58 -0.59½	1.55½-1.57½	1.52½-1.54½
Average.....	0.65½-0.67½	0.61 -0.62½	0.55½-0.58½	0.55½-0.58½	1.57½-1.61½	1.54½-1.58½
July 1....	0.68½-0.70½	0.64 -0.66	0.59½-0.61½	0.59½-0.61½	1.57 -1.58½	1.54 -1.55½
" 8....	0.71 -0.73½	0.67 -0.69½	0.62 -0.63½	0.62 -0.63½	1.58½-1.68	1.55½-1.65
" 15....	0.74 -0.75½	0.70 -0.71½	0.64 -0.65	0.64 -0.65	1.72½-1.77	1.69½-1.74
" 22....	0.75 -0.75½	0.71 -0.71½	0.63½-0.64½	0.63½-0.64½	1.69½-1.74	1.66½-1.71
" 29....	0.72 -0.75	0.67 -0.71½	0.60 -0.61	0.60 -0.61	1.74½-1.84	1.71½-1.81
Average.....	0.72½-0.73½	0.67½-0.70	0.61½-0.63½	0.61½-0.63½	1.66½-1.72½	1.63½-1.69½
August 5....	0.72 -0.77	0.67½-0.73	0.61 -0.65	0.61 -0.65	1.83½-1.91½	1.80½-1.86½
" 12....	0.77 -0.81	0.73 -0.77	0.65 -0.68½	0.65 -0.68½	1.86½-2.02	-1.99
" 19....	0.78 -0.80	0.74 -0.76	0.68 -0.70	0.68 -0.70	1.89½-1.97	1.86½-1.93½
" 26....	0.79 -0.92½	0.75 -0.78½	0.69 -0.72½	0.69 -0.72½	1.91½-1.99½	1.88½-1.96
Average.....	0.76½-0.82½	0.72½-0.76	0.65½-0.69	0.65½-0.69	1.87½-1.97½	1.85½-1.93½
September 2....	0.80 -0.86½	0.76 -0.82½	0.70 -0.76½	0.70 -0.76½	1.84½-1.91½	1.81½-1.88½
" 9....	0.85 -0.86	0.82 -0.83	0.76½ -	0.76½ -	1.84 -1.88½	1.81 -1.85½
" 16....	0.85 -0.88	0.81 -0.84	0.76 -0.77½	0.76 -0.77½	1.86½-1.91½	1.83½-1.88½
" 23....	0.86½-0.89	0.80 -0.83	0.73 -0.77	0.73 -0.77	1.87½-1.98	1.84½-1.95
" 30....	0.90 -0.92½	0.85 -0.87½	0.78 -0.80	0.78 -0.80	1.95½-2.11½	1.92½-2.08½
Average.....	0.85½-0.88½	0.80½-0.84	0.74½-0.77½	0.74½-0.77½	1.87½-1.96½	1.84½-1.93½
October 7....	0.92 -0.96	0.86½-0.91	0.89 -0.80	0.78 -0.80	2.23 -2.26½	2.20 -2.23½
" 14....	0.95 -1.00	0.90 -0.94	0.79 -0.82	0.79 -0.81	2.23½-2.28½	2.20½-2.25½
" 21....	1.01 -1.04	0.94 -0.96½	0.82½-0.85½	0.82 -0.85	2.27½-2.49½	2.24½-2.46
" 28....	1.04½-1.11	0.97 -1.05	0.86 -0.95	0.85½-0.95	2.48 -2.53½	2.45 -2.50½
Average.....	0.98½-1.02½	0.91½-0.96½	0.84½-0.85½	0.81½-0.85½	2.30½-2.39½	2.27½-2.38½
November 4....	1.04 -1.12	0.98 -1.07	0.90 -0.97½	0.90 -0.97½	2.47½-2.49	2.44½-2.46
" 11....	1.08 -1.13	1.02 -1.06	0.96½-1.00	0.96½-1.00	2.50½-2.72	2.47½-2.69
" 18....	1.08 -1.14	0.99 -1.04	0.88 -0.94	0.88 -0.94	2.46 -2.73½	2.43 -2.70½
" 25....	1.12 -1.15	1.01 -1.05	0.91 -0.95	0.91 -0.95	2.57 -2.66½	2.54 -2.63½
Average.....	1.08 -1.13½	1.00 -1.05½	0.91½-0.96½	0.91½-0.96½	2.50½-2.65½	2.47½-2.62½
December 2....	1.08 -1.12	0.95 -1.00	0.82 -0.88	0.80 -0.88	2.54 -2.58½	2.51 -2.55
" 9....	1.05 -1.14	0.95 -0.96	0.80 -0.84	0.80 -0.83	2.55 -2.64½	2.52 -2.61½
" 16....	0.90 -1.00	0.80 -0.90	0.65 -0.80	0.65 -0.80	2.50 -2.58½	2.47 -2.55½
" 23....	0.94 -0.98	0.89 -0.93	0.66 -0.72	0.65 -0.72	2.55½-2.59½	2.52½-2.56½
" 30....	0.97 -0.98	0.93 -0.93	0.70 -0.73	0.68 -0.73	2.58½-2.59½	2.55½-2.56½
Average.....	0.98½-1.04½	0.90½-0.94½	0.72½-0.79½	0.71½-0.79½	2.54½-2.60	2.51½-2.57

## AGRICULTURE.

## 22.—Monthly Range of Average Prices of Barley, Oats and Flax at Winnipeg and Fort William, 1914-1916.

Date.	BARLEY (per bushel of 48 lb.).	OATS (per bushel of 34 lb.).								FLAX (per bushel of 56 lb.).							
		No. 2 C.W.		No. 3 C.W.		No. 1 Feed.		No. 2 Feed.		No. 1 N.W.C.		No. 2 C.W.		No. 3 C.W.			
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Averages or—																	
Jan. ... 1914	0 38 -0.41 $\frac{1}{2}$	0.32 $\frac{1}{2}$ -0.33 $\frac{1}{2}$	0.31 $\frac{1}{2}$ -0.31 $\frac{1}{2}$	0.31 -0.31 $\frac{1}{2}$	0.30 $\frac{1}{2}$ -0.30 $\frac{1}{2}$	1.25 $\frac{1}{2}$ -1.27 $\frac{1}{2}$	1.22 $\frac{1}{2}$ -1.24 $\frac{1}{2}$	-	-								
" ... 1915	0 71 $\frac{1}{2}$ -0.75 $\frac{1}{2}$	0.57 $\frac{1}{2}$ -0.60 $\frac{1}{2}$	0.55 $\frac{1}{2}$ -0.57 $\frac{1}{2}$	0.54 -0.56 $\frac{1}{2}$	0.53 $\frac{1}{2}$ -0.55 $\frac{1}{2}$	1.51 $\frac{1}{2}$ -1.62	1.48 $\frac{1}{2}$ -1.59	-	-								
" ... 1916	0 63 $\frac{1}{2}$ -0.66 $\frac{1}{2}$	0.42 -0.44	0.39 $\frac{1}{2}$ -0.41	0.38 $\frac{1}{2}$ -0.40 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	2.01 $\frac{1}{2}$ -2.10	1.99 $\frac{1}{2}$ -2.07	-	-								
Feb. ... 1914	0 39 $\frac{1}{2}$ -0.43 $\frac{1}{2}$	0.33 $\frac{1}{2}$ -0.34 $\frac{1}{2}$	0.33 $\frac{1}{2}$ -0.33 $\frac{1}{2}$	0.32 $\frac{1}{2}$ -0.33 $\frac{1}{2}$	0.32 $\frac{1}{2}$ -0.32 $\frac{1}{2}$	1.29 $\frac{1}{2}$ -1.31 $\frac{1}{2}$	1.26 $\frac{1}{2}$ -1.28 $\frac{1}{2}$	1.13 $\frac{1}{2}$ -1.15									
" ... 1915	0 80 $\frac{1}{2}$ -0.79	0.64 $\frac{1}{2}$ -0.65 $\frac{1}{2}$	0.61 $\frac{1}{2}$ -0.62 $\frac{1}{2}$	0.61 -0.60	0.59 $\frac{1}{2}$ -0.59 $\frac{1}{2}$	1.60 $\frac{1}{2}$ -1.62 $\frac{1}{2}$	1.57 $\frac{1}{2}$ -1.59 $\frac{1}{2}$	-	-								
" ... 1916	0 65 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.42 $\frac{1}{2}$ -0.44	0.39 $\frac{1}{2}$ -0.41 $\frac{1}{2}$	0.38 $\frac{1}{2}$ -0.40 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	2.04 $\frac{1}{2}$ -2.09	2.01 $\frac{1}{2}$ -2.06	-	-								
March 1914	0 43 $\frac{1}{2}$ -0.45 $\frac{1}{2}$	0.34 $\frac{1}{2}$ -0.34 $\frac{1}{2}$	0.34 $\frac{1}{2}$ -0.34 $\frac{1}{2}$	0.34 -0.34 $\frac{1}{2}$	0.33 $\frac{1}{2}$ -0.33 $\frac{1}{2}$	1.34 $\frac{1}{2}$ -1.37 $\frac{1}{2}$	1.32 $\frac{1}{2}$ -1.34 $\frac{1}{2}$	1.19 -1.22 $\frac{1}{2}$									
" ... 1915	0 75 $\frac{1}{2}$ -0.73 $\frac{1}{2}$	0.60 $\frac{1}{2}$ -0.63	0.58 $\frac{1}{2}$ -0.60 $\frac{1}{2}$	0.58 $\frac{1}{2}$ -0.60 $\frac{1}{2}$	0.56 $\frac{1}{2}$ -0.59	1.66 $\frac{1}{2}$ -1.73 $\frac{1}{2}$	1.63 $\frac{1}{2}$ -1.70 $\frac{1}{2}$	-	-								
" ... 1916	0 59 $\frac{1}{2}$ -0.59 $\frac{1}{2}$	0.39 $\frac{1}{2}$ -0.41 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	0.36 -0.37 $\frac{1}{2}$	0.35 $\frac{1}{2}$ -0.37	1.99 $\frac{1}{2}$ -2.04 $\frac{1}{2}$	1.96 $\frac{1}{2}$ -2.02	-	-								
April ... 1914	- -	0.34 $\frac{1}{2}$ -0.35	0.33 $\frac{1}{2}$ -0.34	0.33 -0.33 $\frac{1}{2}$	0.32 $\frac{1}{2}$ -0.32 $\frac{1}{2}$	1.34 $\frac{1}{2}$ -1.37	1.31 $\frac{1}{2}$ -1.34	1.22 $\frac{1}{2}$ -1.25 $\frac{1}{2}$									
" ... 1915	0 74 $\frac{1}{2}$ -0.75 $\frac{1}{2}$	0.62 $\frac{1}{2}$ -0.64 $\frac{1}{2}$	0.58 $\frac{1}{2}$ -0.61 $\frac{1}{2}$	0.59 -0.60 $\frac{1}{2}$	0.58 -0.59 $\frac{1}{2}$	1.77 $\frac{1}{2}$ -1.77 $\frac{1}{2}$	1.71 $\frac{1}{2}$ -1.74 $\frac{1}{2}$	-	-								
" ... 1916	0 59 $\frac{1}{2}$ -0.63 $\frac{1}{2}$	0.43 $\frac{1}{2}$ -0.44 $\frac{1}{2}$	0.41 $\frac{1}{2}$ -0.42 $\frac{1}{2}$	0.39 $\frac{1}{2}$ -0.41	0.39 $\frac{1}{2}$ -0.41	1.85 $\frac{1}{2}$ -1.90 $\frac{1}{2}$	1.80 $\frac{1}{2}$ -1.88 $\frac{1}{2}$	-	-								
May ... 1914	0 43 $\frac{1}{2}$ -0.48 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.37 $\frac{1}{2}$	0.35 $\frac{1}{2}$ -0.36 $\frac{1}{2}$	0.35 $\frac{1}{2}$ -0.35 $\frac{1}{2}$	0.34 $\frac{1}{2}$ -0.35 $\frac{1}{2}$	1.35 $\frac{1}{2}$ -1.37	1.32 $\frac{1}{2}$ -1.34	1.22 $\frac{1}{2}$ -1.24									
" ... 1915	0 71 -0.72	0.62 $\frac{1}{2}$ -0.63 $\frac{1}{2}$	0.59 $\frac{1}{2}$ -0.61 $\frac{1}{2}$	0.58 $\frac{1}{2}$ -0.60	0.57 $\frac{1}{2}$ -0.59	1.75 $\frac{1}{2}$ -1.80 $\frac{1}{2}$	1.72 $\frac{1}{2}$ -1.76 $\frac{1}{2}$	-	-								
" ... 1916	0 66 $\frac{1}{2}$ -0.68	0.46 $\frac{1}{2}$ -0.47 $\frac{1}{2}$	0.55 -0.46	0.44 $\frac{1}{2}$ -0.45 $\frac{1}{2}$	0.43 -0.44	1.66 $\frac{1}{2}$ -1.73 $\frac{1}{2}$	1.62 $\frac{1}{2}$ -1.70 $\frac{1}{2}$	-	-								
June ... 1914	0 47 $\frac{1}{2}$ -0.53 $\frac{1}{2}$	0.38 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	0.38 $\frac{1}{2}$ -0.38 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.38	0.37 $\frac{1}{2}$ -0.38	1.38 $\frac{1}{2}$ -1.40	1.35 $\frac{1}{2}$ -1.37	-	-								
" ... 1915	0 71 $\frac{1}{2}$ -0.72 $\frac{1}{2}$	0.53 $\frac{1}{2}$ -0.56 $\frac{1}{2}$	0.51 $\frac{1}{2}$ -0.55 $\frac{1}{2}$	- -	- -	1.52 $\frac{1}{2}$ -1.59 $\frac{1}{2}$	1.49 $\frac{1}{2}$ -1.56 $\frac{1}{2}$	-	-								
" ... 1916	0 65 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.45 $\frac{1}{2}$ -0.47 $\frac{1}{2}$	0.44 $\frac{1}{2}$ -0.46	0.43 $\frac{1}{2}$ -0.45	0.41 $\frac{1}{2}$ -0.43	1.57 $\frac{1}{2}$ -1.61 $\frac{1}{2}$	1.54 $\frac{1}{2}$ -1.58 $\frac{1}{2}$	-	-								
July ... 1914	0 46 $\frac{1}{2}$ -0.52 $\frac{1}{2}$	0.38 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.38	0.36 $\frac{1}{2}$ -0.37	0.36 $\frac{1}{2}$ -0.37	1.40 $\frac{1}{2}$ -1.46 $\frac{1}{2}$	1.37 $\frac{1}{2}$ -1.43 $\frac{1}{2}$	1.26 -1.33									
" ... 1915	0 69 $\frac{1}{2}$ -0.71 $\frac{1}{2}$	0.59 -0.61 $\frac{1}{2}$	0.56 $\frac{1}{2}$ -0.58 $\frac{1}{2}$	0.54 $\frac{1}{2}$ -0.57 $\frac{1}{2}$	0.53 $\frac{1}{2}$ -0.56	1.46 -1.51 $\frac{1}{2}$	1.42 $\frac{1}{2}$ -1.48 $\frac{1}{2}$	-	-								
" ... 1916	0 72 $\frac{1}{2}$ -0.73 $\frac{1}{2}$	0.44 $\frac{1}{2}$ -0.45 $\frac{1}{2}$	0.44 -0.45	0.43 $\frac{1}{2}$ -0.44 $\frac{1}{2}$	0.42 -0.43	1.66 $\frac{1}{2}$ -1.72 $\frac{1}{2}$	1.63 $\frac{1}{2}$ -1.69 $\frac{1}{2}$	-	-								
Aug. ... 1914	0 51 $\frac{1}{2}$ -0.57 $\frac{1}{2}$	0.44 $\frac{1}{2}$ -0.44 $\frac{1}{2}$	0.43 $\frac{1}{2}$ -0.46	0.42 -0.43 $\frac{1}{2}$	0.42 -0.44	1.36 $\frac{1}{2}$ -1.46 $\frac{1}{2}$	1.34 $\frac{1}{2}$ -1.43 $\frac{1}{2}$	1.31 -1.52									
" ... 1915	0 57 $\frac{1}{2}$ -0.61	0.50 $\frac{1}{2}$ -0.54 $\frac{1}{2}$	0.49 $\frac{1}{2}$ -0.52 $\frac{1}{2}$	0.47 $\frac{1}{2}$ -0.52 $\frac{1}{2}$	0.45 $\frac{1}{2}$ -0.49 $\frac{1}{2}$	1.38 -1.45 $\frac{1}{2}$	1.35 $\frac{1}{2}$ -1.42 $\frac{1}{2}$	-	-								
" ... 1916	0 76 $\frac{1}{2}$ -0.82 $\frac{1}{2}$	0.48 -0.50 $\frac{1}{2}$	0.47 $\frac{1}{2}$ -0.49 $\frac{1}{2}$	0.36 -0.48 $\frac{1}{2}$	0.45 $\frac{1}{2}$ -0.48 $\frac{1}{2}$	1.87 $\frac{1}{2}$ -1.97 $\frac{1}{2}$	1.85 $\frac{1}{2}$ -1.93 $\frac{1}{2}$	-	-								
Sept. ... 1914	0 55 $\frac{1}{2}$ -0.65 $\frac{1}{2}$	0.49 $\frac{1}{2}$ -0.52 $\frac{1}{2}$	0.48 $\frac{1}{2}$ -0.51 $\frac{1}{2}$	0.48 $\frac{1}{2}$ -0.51 $\frac{1}{2}$	0.46 $\frac{1}{2}$ -0.50	1.28 $\frac{1}{2}$ -1.31 $\frac{1}{2}$	1.25 $\frac{1}{2}$ -1.28 $\frac{1}{2}$	-	-								
" ... 1915	0 50 $\frac{1}{2}$ -0.52 $\frac{1}{2}$	0.37 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	0.35 $\frac{1}{2}$ -0.37 $\frac{1}{2}$	0.34 $\frac{1}{2}$ -0.36	0.33 $\frac{1}{2}$ -0.35	1.41 $\frac{1}{2}$ -1.46 $\frac{1}{2}$	1.38 $\frac{1}{2}$ -1.43 $\frac{1}{2}$	-	-								
" ... 1916	0 85 $\frac{1}{2}$ -0.88 $\frac{1}{2}$	0.51 -0.52 $\frac{1}{2}$	0.50 -0.51 $\frac{1}{2}$	0.49 $\frac{1}{2}$ -0.50 $\frac{1}{2}$	0.59 -0.50 $\frac{1}{2}$	1.87 $\frac{1}{2}$ -1.96 $\frac{1}{2}$	1.84 $\frac{1}{2}$ -1.93 $\frac{1}{2}$	-	-								
Oct. ... 1914	0 57 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.51 $\frac{1}{2}$ -0.53 $\frac{1}{2}$	0.48 $\frac{1}{2}$ -0.50	0.48 -0.49 $\frac{1}{2}$	0.47 -0.48	1.10 $\frac{1}{2}$ -1.14 $\frac{1}{2}$	1.09 $\frac{1}{2}$ -1.13	-	-								
" ... 1915	0 57 $\frac{1}{2}$ -0.61	0.40 $\frac{1}{2}$ -0.43	0.38 $\frac{1}{2}$ -0.41 $\frac{1}{2}$	0.36 $\frac{1}{2}$ -0.39 $\frac{1}{2}$	0.35 $\frac{1}{2}$ -0.38 $\frac{1}{2}$	1.59 $\frac{1}{2}$ -1.65 $\frac{1}{2}$	1.56 $\frac{1}{2}$ -1.64 $\frac{1}{2}$	-	-								
" ... 1916	0 98 $\frac{1}{2}$ -1.02 $\frac{1}{2}$	0.54 $\frac{1}{2}$ -0.57 $\frac{1}{2}$	0.53 -0.56 $\frac{1}{2}$	0.52 -0.55 $\frac{1}{2}$	0.52 -0.55 $\frac{1}{2}$	2.30 $\frac{1}{2}$ -2.39 $\frac{1}{2}$	2.27 $\frac{1}{2}$ -2.38 $\frac{1}{2}$	-	-								
Nov. ... 1914	0 60 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.54 $\frac{1}{2}$ -0.55 $\frac{1}{2}$	0.52 -0.53 $\frac{1}{2}$	0.51 -0.52 $\frac{1}{2}$	0.50 -0.52	1.20 $\frac{1}{2}$ -1.28 $\frac{1}{2}$	1.17 $\frac{1}{2}$ -1.24 $\frac{1}{2}$	-	-								
" ... 1915	0 65 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.40 $\frac{1}{2}$ -0.42 $\frac{1}{2}$	0.38 $\frac{1}{2}$ -0.40 $\frac{1}{2}$	0.37 -0.39	0.36 $\frac{1}{2}$ -0.37 $\frac{1}{2}$	1.76 -1.83 $\frac{1}{2}$	1.73 -1.80 $\frac{1}{2}$	-	-								
" ... 1916	1 08 -1.13 $\frac{1}{2}$	0.63 $\frac{1}{2}$ -0.66	0.60 $\frac{1}{2}$ -0.64	0.60 $\frac{1}{2}$ -0.64 $\frac{1}{2}$	0.59 $\frac{1}{2}$ -0.63	2.50 $\frac{1}{2}$ -2.65 $\frac{1}{2}$	2.47 $\frac{1}{2}$ -2.62 $\frac{1}{2}$	-	-								
Dec. ... 1914	0 55 $\frac{1}{2}$ -0.64	0.52 $\frac{1}{2}$ -0.53 $\frac{1}{2}$	0.49 $\frac{1}{2}$ -0.50 $\frac{1}{2}$	0.48 $\frac{1}{2}$ -0.49 $\frac{1}{2}$	0.48 $\frac{1}{2}$ -0.48 $\frac{1}{2}$	1.27 $\frac{1}{2}$ -1.31 $\frac{1}{2}$	1.24 $\frac{1}{2}$ -1.28 $\frac{1}{2}$	-	-								
" ... 1915	0 65 $\frac{1}{2}$ -0.67 $\frac{1}{2}$	0.39 $\frac{1}{2}$ -0.40 $\frac{1}{2}$	0.36 $\frac{1}{2}$ -0.38 $\frac{1}{2}$	0.34 $\frac{1}{2}$ -0.37 $\frac{1}{2}$	0.33 $\frac{1}{2}$ -0.35 $\frac{1}{2}$	1.81 $\frac{1}{2}$ -1.85	1.78 $\frac{1}{2}$ -1.82	-	-								
" ... 1916	0 98 $\frac{1}{2}$ -1.04 $\frac{1}{2}$	0.54 $\frac{1}{2}$ -0.57 $\frac{1}{2}$	0.51 $\frac{1}{2}$ -0.55 $\frac{1}{2}$	0.50 $\frac{1}{2}$ -0.55 $\frac{1}{2}$	0.49 $\frac{1}{2}$ -0.54 $\frac{1}{2}$	2.54 $\frac{1}{2}$ -2.60	2.51 $\frac{1}{2}$ -2.57	-	-								



## PRODUCTION.

23.—Prices in British Markets of Canadian Wheat, Wheat Flour and Oats, 1916.

Date.	WHEAT (per bushel of 60 lb.).				WHEAT FLOUR (per 280 lb.).								OATS.
	Best Hard.	No. 1.	No. 2.	No. 3.	Canadian good.	Canadian 1st bakers.	Canadian common.	Canadian soft winter.	(Per bush. of 34 lb.).				
	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
Jan. 3..	1.95½-1.96½	1.92½-1.93½	1.90-1.90½	1.87-1.87½	11.66-11.91	-	-	10.94-11.18	-	-	-	-	-
" 10..	1.98½-1.99½	1.95½-1.96½	1.91½-1.93½	-	11.91-12.15	-	-	11.18-11.42	-	-	-	-	-
" 17..	-	1.99½-1.97½	1.96½-1.97½	1.93½-1.94½	11.91-12.15	-	-	11.18-11.42	-	-	-	-	0.89½-0.91½
" 24..	2.09½-2.12½	2.06½-2.09½	2.03½-2.06½	2.00½-2.03½	11.91-12.15	-	-	11.18-11.42	-	-	-	-	0.90-0.91
" 31..	2.15½-2.18½	2.12½-2.15½	2.09½-2.12½	2.06½-2.09½	12.15-12.41	-	-	11.42-11.66	-	-	-	-	0.92½-0.94½
Average...	2.04½-2.06½	2.01½-2.02½	1.98-2.00	1.96½-1.98½	11.90½-12.15½	-	-	11.18-11.42	-	-	-	-	0.90½-0.92½
Feb. 7..	2.12½-2.15½	2.09½-2.12½	2.06½-2.09½	2.03½-2.06½	12.41-12.65	-	-	11.42-11.66	-	-	-	-	0.88½-0.90
" 14..	2.15½-2.16½	2.12½-2.13½	2.09½-2.10½	2.06½-2.07	12.27-12.52	-	-	11.30-11.54	-	-	-	-	0.88½-0.90
" 21..	2.18½-2.19½	2.15½-2.16½	2.12½-2.13½	2.09½-2.10	12.27-12.52	-	-	11.30-11.54	-	-	-	-	0.90½-0.93
" 28..	2.18½-2.21½	2.16½-2.18½	2.13½-2.15	2.10½-2.11½	12.41-12.65	-	-	11.42-11.66	-	-	-	-	0.91½-0.94½
Average...	2.16-2.18½	2.13½-2.15	2.10½-2.12½	2.07½-2.08½	12.34-12.58½	-	-	11.36-11.60	-	-	-	-	0.90-0.91½
March 6..	2.16½-2.18½	2.13½-2.15½	2.10½-2.12½	2.07½-2.08½	12.15-12.41	-	-	11.18-11.42	-	-	-	-	0.90½-0.93
" 13..	2.12½	2.09½-2.10½	2.06½-2.07½	2.03½-2.04	11.91-12.15	-	-	10.94-11.18	-	-	-	-	0.90½-0.92
" 20..	1.97½-1.98½	1.94½-1.95½	1.91½-1.92½	1.88½-1.89½	11.42-11.66	-	-	10.45-10.69	-	-	-	-	0.90½-0.93
" 27..	-	-	-	-	-	-	-	-	-	-	-	-	-
Average...	2.08½-2.08½	2.05½-2.07½	2.02½-2.04½	1.99½-2.00½	11.82½-12.07½	-	-	10.85½-11.09½	-	-	-	-	0.90½-0.93
April 3..	1.92½-1.94½	1.90-1.91½	1.87-1.88½	1.84-1.85½	11.18-11.42	-	-	10.21-10.45	-	-	-	-	0.80½-0.85½
" 10..	-	1.94½-1.97½	1.91½-1.94½	1.88½-1.91½	11.18-11.42	-	-	10.21-10.45	-	-	-	-	0.81½-0.86½
" 17..	-	1.92½-1.95½	1.90-1.92½	1.87-1.90	11.18-11.42	-	-	10.21-10.45	-	-	-	-	0.88-0.90½
" 24..	-	1.87-1.90	1.84-1.87	1.81-1.84	11.18-11.42	-	-	10.21-10.45	-	-	-	-	0.93-0.95½
Average...	1.92½-1.94½	1.91-1.93½	1.88-1.90½	1.85½-1.87½	11.18-11.42	-	-	10.21-10.45	-	-	-	-	0.85½-0.89½
May 1..	-	1.84-1.87	1.81-1.84	1.78½-1.81	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.95½-0.98½
" 8..	-	1.84-1.87	1.81-1.84	1.78½-1.81	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.93-0.95½
" 15..	-	1.88½-1.91½	1.85½-1.88½	1.82½-1.85½	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.93-0.98½
" 22..	-	1.84-1.87	1.81-1.84	1.78½-1.81	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.93-0.95½
" 29..	-	1.81-1.82½	1.78½-1.79½	1.75½-1.76½	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.93-0.94½
Average...	-	1.84½-1.87	1.81½-1.84	1.78½-1.81	11.42-11.66	-	-	10.21-10.45	-	-	-	-	0.93½-0.96½
June 5..	-	1.75½-1.77	1.72½-1.73½	1.69½-1.70½	11.42-11.66	10.94-11.18	10.21-10.45	-	-	-	-	-	0.93-0.94½
" 12..	-	1.56-1.62	1.53½-1.56	1.50½-1.53½	10.94-11.18	10.45-10.69	9.74-9.97	-	-	-	-	-	0.91½-0.93
" 19..	-	1.56-1.59	1.53½-1.56	1.50½-1.53½	10.94-11.18	10.45-10.69	9.74-9.97	-	-	-	-	-	0.89½-0.90½
" 26..	-	1.47-1.53½	1.44½-1.47	-	10.69-10.94	10.21-10.45	9.49-9.74	-	-	-	-	-	0.85½-0.88
Average...	-	1.58½-1.62½	1.55½-1.58	1.56½-1.58½	10.99½-11.24	10.51½-10.75½	9.75½-10.03½	-	-	-	-	-	0.90-0.91½
July..... 3..	-	1.50½-1.53½	-	-	10.45-10.69	10.21-10.45	9.49-9.74	-	-	-	-	-	0.84-0.86½
" 10..	-	1.56-1.59	1.53½-1.56	-	10.45-10.69	10.21-10.45	9.49-9.74	-	-	-	-	-	0.85½-0.88
" 17..	-	1.56-1.59	1.53½-1.56	-	10.21-10.45	9.97-10.21	9.25-9.49	-	-	-	-	-	0.88-0.90½
" 24..	-	1.65-1.68	1.62-1.65	1.59-1.62	10.45-10.69	10.21-10.45	9.49-9.74	-	-	-	-	-	0.88-0.90½
" 31..	-	1.82½-1.85½	1.79½-1.82½	1.77-1.79½	10.69-10.94	10.45-10.69	9.74-9.97	-	-	-	-	-	0.89½-0.91½
Average...	-	1.62-1.65	1.62-1.64½	1.68-1.70	10.45-10.69½	10.23-10.45	9.49½-9.73½	-	-	-	-	-	0.87-0.89½
August 7..	-	1.94½-1.97½	1.91½-1.94½	1.88½-1.91½	11.18-11.42	10.94-11.18	10.21-10.45	10.21-10.69	0.89½-0.91½	-	-	-	0.89½-0.91½
" 14..	-	2.12½-2.15½	2.09½-2.12½	2.06½-2.09½	12.15-12.41	11.91-12.15	11.18-11.42	11.18-11.66	0.89½-0.91½	-	-	-	0.89½-0.91½
" 21..	-	2.00½-2.03½	1.97½-2.00½	-	11.91-12.15	11.66-11.91	10.94-11.18	10.94-11.42	0.89½-0.91½	-	-	-	0.90½-0.93
" 28..	-	2.15½-2.21½	2.12½-2.15½	-	12.65-12.89	12.41-12.65	11.66-11.91	11.66-12.15	0.90½-0.93	-	-	-	-
Average...	-	2.05½-2.09½	2.02½-2.05½	1.97½-2.00½	11.97½-12.21½	11.73-11.97½	10.99½-11.24	10.99½-11.48	0.89½-0.92	-	-	-	-
Sept. 4..	-	2.15½-2.21½	2.12½-2.15½	-	12.41-12.65	12.15-12.41	11.42-11.66	11.42-11.91	0.90½-0.93	-	-	-	-
" 11..	-	2.21½-2.24½	2.15½-2.18½	-	12.89-13.14	12.65-12.89	11.91-12.15	11.91-12.41	0.90½-0.93	-	-	-	-
" 18..	-	2.15½-2.18½	2.09½-2.12½	-	12.65-12.89	12.41-12.65	11.66-11.91	11.66-12.15	0.90½-0.93	-	-	-	-
" 25..	-	2.09½-2.12½	-	-	12.65-12.89	12.41-12.65	11.66-11.91	11.66-12.15	0.90½-0.93	-	-	-	-
Average...	-	2.15½-2.19	2.12½-2.15½	-	12.65-12.89½	12.40½-12.65	11.66½-11.90½	11.66½-12.15½	0.90½-0.93	-	-	-	-

Date.	WHEAT (per bushel of 60 lb.).								WHEAT FLOUR (per 280 lb.).								OATS.
	Best Hard.		No. 1.		No. 2.		No. 3.		Canadian good.		Canadian 1st bakers.		Canadian common.		Canadian soft winter.		(Per bush. of 34 lb.).
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
October 2.	-	-	2.15	-2.18	2.12	-2.15	-	-	12.65	-12.89	12.41	-12.65	11.66	-11.91	11.66	-12.15	0.904-0.93
" 9.	-	-	2.21	-2.24	2.18	-2.21	2.15	-2.28	12.14	-13.38	12.89	-13.14	12.15	-12.41	12.15	-12.65	0.944-0.97
" 16.	-	-	2.30	-2.33	2.27	-2.30	2.24	-2.27	13.38	-13.62	13.14	-13.38	12.42	-12.65	12.41	-12.89	0.984-1.01
" 23.	-	-	2.33	-2.36	2.30	-2.33	2.27	-2.30	13.62	-13.86	13.38	-13.62	12.65	-12.89	12.65	-13.14	0.984-1.01
" 30.	-	-	2.39	-2.42	2.36	-2.39	-	-	13.62	-13.86	13.38	-13.62	12.65	-12.89	12.65	-13.14	1.031-1.06
Average.	-	-	2.27	-2.30	2.24	-2.27	2.22	-2.28	13.28	-13.46	13.04	-13.28	12.50	-12.55	12.50	-12.79	0.97-0.99
Nov. 6.	-	-	2.56	-2.59	2.53	-2.56	2.50	-2.53	14.84	-15.09	-	-	-	-	-	-	1.064-1.08
" 13.	-	-	2.44	-2.47	2.41	-2.44	2.38	-2.41	15.09	-15.33	-	-	-	-	-	-	1.111-1.134
" 20.	-	-	2.47	-2.50	2.44	-2.47	2.41	-2.44	15.57	-15.81	14.84	-15.09	14.60	-14.84	13.87	-14.11	1.19-1.21
" 27.	-	-	2.47	-2.50	2.44	-2.47	2.41	-2.44	15.57	-15.81	14.84	-15.09	14.36	-14.60	13.63	-13.87	1.241-1.26
Average.	-	-	2.48	-2.51	2.45	-2.48	2.42	-2.45	15.26	-15.51	14.84	-15.09	14.48	-14.72	13.75	-13.99	1.154-1.17
Dec. 4.	-	-	2.53	-2.56	2.50	-2.53	2.47	-2.50	15.33	-15.52	14.60	-14.84	14.36	-14.60	13.63	-13.87	1.311-1.34
" 11.	-	-	2.56	-2.59	2.53	-2.56	2.50	-2.53	15.33	-15.52	14.60	-14.84	14.36	-14.60	13.63	-13.87	1.311-1.34
" 18.	-	-	2.62	-2.73	2.59	-2.62	-	-	15.33	-15.52	14.60	-14.84	14.36	-14.60	13.63	-13.87	1.37-1.39
" 25.	-	-	2.67	-2.73	2.67	-2.67	2.62	-2.64	15.33	-15.52	14.60	-14.84	14.36	-14.60	13.63	-13.87	1.37-1.39
Average.	-	-	2.59	-2.70	2.57	-2.59	2.53	-2.56	15.33	-15.52	14.60	-14.84	14.36	-14.60	13.63	-13.87	1.341-1.37

Date.	WHEAT (per bushel of 60 lb.).								WHEAT FLOUR (per 280 lb.).								OATS.	
	No. 1.		No. 2.		No. 3.		No. 4.		Manitoba Patents.		Manitoba Straights.		Manitoba 1st bakers.		Manitoba 2nd bakers.		Per bushel of 34 lb.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Jan. 1913	1.12	1.15	1.09	1.12	1.06	1.07	1.04	1.05	6.97	7.06	6.81	6.87	—	—	—	—	0.54	0.57
" 1914	1.06	1.07	1.03	1.04	1.00	1.02	0.94	0.97	6.38	6.51	6.20	6.27	5.96	6.02	5.47	5.53	0.49	0.52
" 1915	1.72 <sup>1</sup> / <sub>2</sub>	1.72 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.66 <sup>1</sup> / <sub>2</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.63	1.63 <sup>1</sup> / <sub>2</sub>	9.91	10.15	9.67	9.91	9.43	9.65	9.19	9.43	0.79 <sup>1</sup> / <sub>2</sub>	0.82 <sup>1</sup> / <sub>2</sub>
" 1916	2.01 <sup>1</sup> / <sub>2</sub>	2.02 <sup>1</sup> / <sub>2</sub>	1.98	2.00	1.96 <sup>1</sup> / <sub>2</sub>	1.98 <sup>1</sup> / <sub>2</sub>	—	—	—	—	—	—	—	—	—	—	0.90 <sup>1</sup> / <sub>2</sub>	0.92 <sup>1</sup> / <sub>2</sub>
Feb. 1913	1.15	1.17	1.13	1.15	1.09	1.10	1.06	1.08	7.12	7.18	6.94	7.00	—	—	—	—	0.54	0.57
" 1914	1.06	1.07	1.04	1.05	—	—	—	—	6.51	6.63	6.27	6.39	6.02	6.14	5.53	5.66	0.49	0.52
" 1915	1.98 <sup>1</sup> / <sub>2</sub>	2.01 <sup>1</sup> / <sub>2</sub>	1.95 <sup>1</sup> / <sub>2</sub>	1.98	1.93 <sup>1</sup> / <sub>2</sub>	1.95 <sup>1</sup> / <sub>2</sub>	1.88 <sup>1</sup> / <sub>2</sub>	1.90 <sup>1</sup> / <sub>2</sub>	11.00	11.24	10.76	11.00	10.51	10.76	10.27	10.51	0.87 <sup>1</sup> / <sub>2</sub>	0.90
" 1916	2.13 <sup>1</sup> / <sub>2</sub>	2.15 <sup>1</sup> / <sub>2</sub>	2.10 <sup>1</sup> / <sub>2</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.07 <sup>1</sup> / <sub>2</sub>	2.08 <sup>1</sup> / <sub>2</sub>	—	—	—	—	—	—	—	—	—	—	0.90	0.91 <sup>1</sup> / <sub>2</sub>
March, 1913	1.15	1.17	1.12	1.13	1.09	1.10	—	—	—	—	6.69	6.83	—	—	—	—	0.53	0.55
" 1914	1.11	1.12	1.08	1.09	1.06	1.08	—	—	6.76	6.88	6.52	6.64	6.28	6.40	5.79	5.91	0.52	0.54
" 1915	1.98 <sup>1</sup> / <sub>2</sub>	2.01 <sup>1</sup> / <sub>2</sub>	1.95 <sup>1</sup> / <sub>2</sub>	1.98	1.92 <sup>1</sup> / <sub>2</sub>	1.95 <sup>1</sup> / <sub>2</sub>	1.92	1.93 <sup>1</sup> / <sub>2</sub>	11.23	11.48	11.00	11.23	10.74	10.99	10.50	10.73 <sup>1</sup> / <sub>2</sub>	0.86 <sup>1</sup> / <sub>2</sub>	0.88 <sup>1</sup> / <sub>2</sub>
" 1916	2.05 <sup>1</sup> / <sub>2</sub>	2.07 <sup>1</sup> / <sub>2</sub>	2.02 <sup>1</sup> / <sub>2</sub>	2.04 <sup>1</sup> / <sub>2</sub>	1.99 <sup>1</sup> / <sub>2</sub>	2.00 <sup>1</sup> / <sub>2</sub>	—	—	—	—	—	—	—	—	—	—	0.90 <sup>1</sup> / <sub>2</sub>	0.93 <sup>1</sup> / <sub>2</sub>
April, 1913	1.15	1.16	1.12	1.13	1.21	1.22	1.19	1.20	6.83	6.95	6.59	6.71	—	—	—	—	0.52	0.54
" 1914	1.07	1.09	1.06	1.07	1.05	1.06	—	—	6.69	6.81	6.28	6.57	6.20	6.33	5.72	5.84	0.52	0.54
" 1915	1.97 <sup>1</sup> / <sub>2</sub>	2.00 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>2</sub>	1.91 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	1.89 <sup>1</sup> / <sub>2</sub>	1.91	11.36	11.60	11.12	11.36	10.88	11.12	10.63	10.88	0.88	0.90 <sup>1</sup> / <sub>2</sub>
" 1916	1.92 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	1.91	1.93 <sup>1</sup> / <sub>2</sub>	1.88	1.90 <sup>1</sup> / <sub>2</sub>	1.85 <sup>1</sup> / <sub>2</sub>	1.87 <sup>1</sup> / <sub>2</sub>	—	—	—	—	—	—	—	—	0.85 <sup>1</sup> / <sub>2</sub>	0.89 <sup>1</sup> / <sub>2</sub>
May, 1913	1.20	1.21																

## PRODUCTION.

## 24.—Monthly Range of Average Prices in British Markets of Canadian Wheat, Wheat Flour, and Oats, 1913-1916.—concluded.

Date.	WHEAT (per bushel of 60 lb.).								WHEAT FLOUR (per 280 lb.).								OATS.	
	No. 1.		No. 2.		No. 3.		No. 4.		Manitoba Patents		Manitoba Straights		Manitoba 1st bakers.		Manitoba 2nd bakers.		Per bushel of 34 lb.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
July...1913	1.16	-1.18	1.13	-1.14	1.09	-1.10	1.02	-1.04	6.89-	7.02	6.65-	6.77	6.04-	6.10	5.74-	5.86	0.52	-0.56
"...1914	1.10	-1.11	1.07	-1.08	1.05	-1.06	1.04	-1.05	6.57-	6.69	6.33-	6.45	6.08-	6.20	5.59-	5.72	0.50	-0.51
"...1915	1.71	-1.74	1.68	-1.71	1.65	-1.68	1.71	-1.74	10.54-	10.78	10.30-	10.54	10.06-	10.30	9.86-	10.09	0.89½	-0.91½
"...1916	1.62	-1.65	1.62	-1.64½	1.68	-1.70½	-	-	-	-	-	-	10.23-	10.45	-	-	0.87	-0.89½
Aug...1913	1.12	-1.14	1.10	-1.11	1.05	-1.07	0.99	-1.00	6.87-	6.99	6.63-	6.75	6.02-	6.08	5.72-	5.84	0.52	-0.54
"...1914	1.35	-1.38	1.32	-1.34	1.30	-1.32	1.27	-1.30	7.91-	8.09	7.67-	7.85	7.42-	7.61	7.31-	7.24	0.79	-0.82
"...1915	1.76½	-1.79½	1.73	-1.76½	1.70½	-1.73½	1.64½	-1.67½	10.67-	10.91	10.43-	10.67	10.19-	10.43	-	-	-	-
"...1916	2.05½	-2.09½	2.02½	-2.05½	1.97½	-2.00½	-	-	-	-	-	-	11.73-	11.97½	-	-	0.89½	-0.92
Sept...1913	1.13	-1.14	1.10	-1.11	1.06	-1.07	1.02	-1.03	6.74-	6.86	6.50-	6.62	5.97-	6.04	5.58-	5.78	0.50	-0.53
"...1914	1.42	-1.44	1.38	-1.39	1.37	-1.38	-	-	8.94-	9.19	8.70-	8.94	8.46-	8.70	8.21-	8.46	0.83	-0.86
"...1915	1.75½	-1.78½	1.76½	-1.79½	1.72½	-1.75½	1.63½	-1.66½	10.20-	10.39	9.97-	10.12	9.62-	9.86	9.31-	9.52	-	-
"...1916	2.15½	-2.19	2.12½	-2.15½	-	-	-	-	-	-	-	-	12.40½	-12.65	-	-	0.90½	-0.93
Oct...1913	1.07	-1.09	1.04	-1.06	1.02	-1.04	0.97	-1.00	6.60-	6.68	6.38-	6.44	6.04-	6.11	5.58-	5.68	0.48	-0.51
"...1914	1.37	-1.39	1.35	-1.37	1.32	-1.34	1.30	-1.32	8.64-	8.88	8.39-	8.64	8.15-	8.39	7.91-	8.15	0.79	-0.83
"...1915	1.75½	-1.78½	-	-	-	-	-	-	10.33-	10.57	10.21-	10.27	9.73-	9.98	9.49-	9.73	0.77	-0.81½
"...1916	2.27½	-2.30½	2.24½	-2.27½	2.22½	-2.28½	-	-	-	-	-	-	13.04	-13.28½	-	-	0.97	-0.99½
Nov...1913	1.04	-1.06	1.01	-1.04	0.98	-1.01	0.95	-0.98	6.59-	6.65	6.35-	6.41	6.10-	6.16	5.61-	5.67	0.48	-0.51
"...1914	1.45	-1.48	1.42	-1.45	1.40	-1.42	1.34	-1.35	8.85-	9.12	8.64-	8.88	8.39-	8.64	8.15-	8.39	0.78	-0.81
"...1915	1.78½	-1.80	1.75½	-1.77½	1.72½	-1.74½	1.68	-1.68½	10.81-	11.06	10.69-	10.75	10.21-	10.45	9.98	-10.20	0.82½	-0.84½
"...1916	2.48½	-2.51½	2.45½	-2.48½	2.42½	-2.45½	-	-	-	-	-	-	14.84	-15.09	-	-	1.15½	-1.17½
Dec...1913	1.06	-1.08	1.02	-1.04	0.99	-1.02	0.96	-0.99	6.58-	6.64	6.34-	6.40	6.09-	6.15	5.60-	5.67	0.49	-0.52
"...1914	1.50	-1.51	1.47	-1.49	1.44	-1.46	1.42	-1.43	8.94-	9.18	8.70-	8.94	8.45-	8.70	8.21-	8.45	0.75	-0.78
"...1915	1.80½	-1.81½	1.77½	-1.78½	1.74½	-1.78	1.71½	-1.72½	-	-	-	-	-	-	-	-	0.77½	-0.80½
"...1916	2.59½	-2.70½	2.57½	-2.59½	2.57½	-2.59½	2.53½	-2.56	-	-	-	-	14.60-	14.84	-	-	1.34½	-1.37

## 25.—Prices in British Markets of Canadian Bacon and Hams, 1916.

(Per cwt. of 100 lb.)

## BACON.

Date.	SIDES.								CUMBERLAND CUTS.			
	Bristol.		Liverpool.		London.		Glasgow.		Liverpool.		Glasgow.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
January 5...	19.77	-18.69	19.77	-19.13	20.22	-19.13	20.22	-	18.91	-18.24	-	-
" 12...	19.78	-18.69	19.78	-18.91	20.22	-19.13	20.00	-19.78	18.69	-18.02	-	-
" 19...	20.00	-18.91	19.78	-18.91	20.22	-19.13	20.00	-19.78	17.16	-16.73	18.69	-18.24
" 26...	19.78	-18.91	19.78	-18.91	20.00	-19.78	20.22	-19.78	16.95	-16.08	17.81	-
Average.....	19.83	-18.80	19.78	-18.97	20.17	-19.29	20.11	-19.78	17.93	-17.27	18.25	-18.24
February 2...	20.22	-19.13	20.22	-19.13	20.88	-19.56	20.88	-20.44	16.95	-15.86	17.81	-
" 9...	20.22	-19.13	20.22	-18.91	20.88	-19.56	20.66	-20.22	16.95	-15.86	-	-
" 16...	20.00	-19.13	20.00	-18.69	20.66	-19.35	20.22	-19.56	17.16	-15.86	-	-
" 23...	19.56	-18.69	19.56	-18.24	20.00	-18.69	19.56	-	17.16	-15.86	-	-
Average.....	20.00	-19.02	20.00	-18.74	20.61	-19.29	20.33	-20.07	17.06	-15.86	17.81	-
March 1...	19.56	-18.47	19.56	-18.02	20.00	-18.69	19.56	-19.13	16.95	-15.86	-	-
" 8...	20.00	-18.91	19.56	-18.24	20.00	-18.69	19.78	-19.56	17.16	-16.08	-	-
" 15...	20.44	-19.56	20.22	-19.13	20.44	-19.13	20.44	-20.00	18.47	-17.16	-	-
" 22...	21.22	-20.44	21.00	-20.22	21.22	-20.66	20.88	-20.44	19.13	-18.24	-	-
" 29...	21.22	-20.44	21.22	-20.44	21.22	-20.66	21.22	-20.88	19.56	-18.69	-	-
Average.....	20.49	-19.56	20.31	-19.21	20.58	-19.57	20.38	-20.00	18.25	-17.21	-	-

## AGRICULTURE.

25.—Prices in British Markets of Canadian Bacon and Hams, 1916—con.  
(Per cwt. of 100 lb.)

## BACON.

Date.	SIDES.				CUMBERLAND CUTS.			
	Bristol.	Liverpool.	London.	Glasgow.	Liverpool.	Glasgow.		
	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	
April 5...	21.44-20.88	21.44-20.66	21.66-20.88	21.66-21.22	20.00-19.13	-	-	
" 12...	21.66-21.00	21.66-20.88	21.66-20.88	21.66-21.22	20.44-19.56	-	-	
" 19...	21.88-21.22	21.88-21.00	22.10-21.22	22.10-21.66	20.88-20.00	-	-	
" 26...	22.10-21.44	21.88-21.00	22.10-21.22	22.10-21.66	20.88-20.00	-	-	
Average.....	21.77-21.13	21.72-20.89	21.88-21.05	21.88-21.44	20.55-19.67	-	-	
May 3...	22.10-21.44	22.10-21.22	22.10-21.22	22.10-21.66	21.00-20.22	-	-	
" 10...	21.88-21.22	21.88-21.00	22.10-21.22	22.10-21.88	20.88-20.22	-	-	
" 17...	21.66-21.00	21.66-20.88	24.29-21.22	21.88-21.66	20.44-19.56	-	-	
" 24...	21.22-20.66	21.44-20.66	21.66-20.88	21.44-21.22	20.00-18.91	-	-	
" 31...	20.88-20.00	20.88-20.22	21.66-20.88	-	19.78-18.69	18.47-18.24	-	-
Average.....	21.55-20.86	21.59-20.80	22.36-21.08	21.88-21.61	20.42-19.52	18.47-18.24	-	-
June 7...	20.22-19.56	20.22-19.35	21.22-20.44	20.88 -	19.56-18.47	-	-	
" 14...	20.44-20.00	20.00-19.13	21.22-20.44	20.44 -	19.35-18.24	-	-	
" 21...	21.22-20.66	20.66-19.35	21.22-18.24	20.88 -	19.78-18.47	-	-	
" 28...	21.22-20.66	21.22-20.00	21.66-20.88	21.22-20.88	20.00-18.69	-	-	
Average.....	20.78-20.22	20.53-19.46	21.33-20.00	20.86-20.88	19.67-18.47	-	-	
July 5...	21.22-20.22	21.22-20.00	21.66-20.88	20.88 -	-	-	-	
" 12...	21.22-20.22	21.22-20.00	22.54-21.22	21.22 -	-	-	-	
" 19...	22.10-21.22	21.88-20.88	22.54-21.22	22.54-22.10	-	-	-	
" 26...	22.98-22.10	22.32-21.44	22.54-21.66	22.54 -	20.22-18.91	-	-	
Average.....	21.88-20.94	21.66-20.58	22.32-21.35	21.80-22.10	20.22-18.91	-	-	
August 2...	22.98-22.32	22.76-22.10	22.98-22.10	22.98 -	-	-	-	
" 9...	24.29-23.42	23.42-22.76	23.42-22.54	23.42 -	-	-	-	
" 16...	24.29-23.64	24.08-23.42	24.29-23.42	24.73 -	-	-	-	
" 23...	24.29-23.42	23.42-22.76	23.42-22.54	26.05-25.61	-	-	-	
" 30...	22.98-22.32	22.76-22.10	22.98-22.10	25.61 -	-	-	-	
Average.....	23.77-23.02	23.29-22.63	23.42-22.54	24.56-25.61	-	-	-	
September 6...	25.17-24.51	25.17-24.29	25.17-24.29	25.17-24.73	-	-	-	
" 13...	24.95-24.51	24.73-24.08	25.17-24.29	25.17-24.73	-	-	-	
" 20...	24.73-24.29	24.51-23.86	24.73-24.29	24.29 -	-	-	-	
" 27...	24.73-24.29	24.51-23.86	24.73-23.86	24.29 -	-	-	-	
Average.....	24.90-24.40	24.73-24.02	24.95-24.18	24.73-24.73	-	-	-	
October 4...	24.29-23.86	24.29-23.64	24.29-23.42	24.29-23.86	-	-	-	
" 11...	23.42-22.98	23.86-22.76	23.42-22.54	23.42-23.20	-	-	-	
" 18...	23.42-22.98	23.42-22.54	23.42-22.54	23.20-22.98	-	-	-	
" 25...	23.42-22.98	23.42-22.76	23.42-22.54	23.64-23.20	-	-	-	
Average.....	23.64-23.20	23.75-22.93	23.64-22.76	23.64-23.31	-	-	-	
November 1...	24.29-23.42	23.86-23.20	24.29-23.42	23.64-23.42	-	-	-	
" 8...	24.29-23.42	24.51-23.64	24.73-23.86	23.86 -	-	-	-	
" 15...	24.73-23.86	24.51-23.64	24.73-23.86	24.29-23.86	-	-	-	
" 22...	24.73-23.86	24.51-23.64	24.73-23.86	23.86-23.42	-	-	-	
" 29...	24.51-23.86	24.51-23.42	24.29-23.42	23.86-23.42	-	-	-	
Average.....	24.51-23.68	24.38-23.51	24.55-23.68	23.90-23.53	-	-	-	



## PRODUCTION.

## 25.—Prices in British Markets of Canadian Bacon and Hams, 1916—concluded.

(Per cwt. of 100 lb.)

## LONG CUT HAMS.

Date.	Bristol.	Liverpool.	London.	Date.	Bristol.	Liverpool.	London.
1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	1916.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January 5	- -	- -	21.22-20.88	May 3	21.66-20.88	21.66-21.00	21.66-21.22
" 12	- -	- -	21.22-20.44	" 10	21.66-20.88	21.66-21.00	21.88-21.00
" 19	- -	- -	20.66-20.00	" 17	21.66-20.88	21.66-20.88	21.66-21.00
" 26	- -	- -	20.88-20.00	" 24	21.66-20.88	21.66-20.88	21.66-20.00
Average....	- -	- -	20.99-20.33	" 31	21.66-20.88	21.44-20.66	21.66-21.22
February 2	- -	20.66-20.22	21.00-20.00	Average....	21.66-20.88	21.62-20.88	21.70-20.89
" 9	- -	20.66-20.22	20.66-20.00	June 7	21.66-20.88	21.22-20.44	21.44-20.88
" 16	- -	20.44-19.78	20.88-20.00	" 14	21.66-20.88	21.22-20.44	21.66-20.88
" 23	- -	20.44-19.56	20.44-19.56	" 21	21.66-20.88	21.44-20.66	21.22-20.44
Average....	- -	20.55-19.94	20.74-19.89	" 28	21.66-20.88	21.66-20.88	21.88-21.00
March 1	- -	20.00-19.13	20.00-19.13	Average....	21.66-20.88	21.39-20.61	21.55-20.80
" 8	- -	19.78-18.91	19.78-18.66	July 6	21.66-20.88	21.66-20.88	21.66-20.88
" 15	20.44-19.56	20.22-19.13	19.56-18.66	" 13	21.66-20.88	21.66-20.88	21.44-20.88
" 22	20.88-20.00	20.88-20.00	20.88-20.00	" 19	21.66-20.88	21.66-20.88	21.66-20.88
" 29	21.22-20.44	21.22-20.44	21.22-20.00	" 26	22.10-21.22	21.66-20.88	21.66-20.88
Average....	20.84-20.00	20.42-19.52	20.28-19.30	Average....	21.77-20.95	21.66-20.88	21.61-20.88
April 5	21.22-20.44	21.22-20.44	21.66-20.88	August 2	22.54-21.66	- -	22.10-21.22
" 12	21.66-20.88	21.44-20.66	21.66-20.88	" 9	22.54-21.66	- -	23.42-22.54
" 19	21.66-20.88	21.66-20.88	21.66-20.88	" 16	22.98-22.10	- -	24.73-23.86
" 26	21.66-20.88	21.66-20.88	21.66-21.22	" 23	22.54-21.66	- -	23.42-22.54
Average....	21.55-20.77	21.49-20.71	21.63-20.96	" 30	22.54-21.66	- -	22.10-21.22
				Average....	22.63-21.75	- -	23.15-22.28

## 26.—Monthly Range of Average Prices in British Markets of Canadian Bacon and Hams.

(Per cwt. of 100 lb.)

## BACON.

Date.	SIDES.				CUMBERLAND CUT.			
	Bristol.	Liverpool.	London.	Glasgow.	Liverpool.	Glasgow.		
Averages for—	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
January.....	1913 15.21-14.65	15.05-14.56	15.32-14.95	14.99-14.12	14.64-14.88	14.77-13.90		
".....	1914 15.21-14.77	14.88-14.61	15.38-14.83	15.48-15.21	15.75-14.83	15.70-15.32		
".....	1915 16.89-16.35	16.62-16.08	16.79-15.98	- -	14.72-14.29	- -		
".....	1916 19.83-18.80	19.78-18.97	20.17-19.29	20.11-19.78	17.98-17.27	18.25-18.24		
February.....	1913 15.86-15.21	15.27-14.61	15.96-15.50	- -	16.78-15.12	- -		
".....	1914 14.93-14.50	14.34-13.91	15.32-14.66	15.15-14.94	16.02-14.94	16.08-15.64		
".....	1915 16.46-15.92	16.19-15.21	16.52-15.75	- -	15.05-14.34	- -		
".....	1916 20.00-19.02	20.00-18.74	20.61-19.29	20.33-20.07	17.06-15.86	17.81 -		
March.....	1913 16.03-15.53	15.83-15.16	16.02-15.58	16.73 -	16.46-15.73	16.66-15.73		
".....	1914 14.56-14.12	14.61-14.23	14.56-14.07	15.10-14.41	16.40-15.10	16.00-15.59		
".....	1915 15.99-15.12	15.95-14.77	16.25-15.47	- -	14.77-13.90	- -		
".....	1916 20.49-19.56	20.31-19.21	20.58-19.57	20.38-20.00	18.26-17.21	- -		
April.....	1913 16.08-15.64	15.77-15.12	16.08-15.64	16.73 -	16.71-15.45	17.16 -		
".....	1914 14.99-14.55	14.64-14.24	15.17-14.51	16.08 -	16.12-15.38	15.64-15.21		
".....	1915 16.84-15.97	16.73-15.43	17.09-15.97	- -	15.16-14.12	- -		
".....	1916 21.77-21.13	21.72-20.89	21.88-21.05	21.88-21.44	20.55-19.67	- -		
May.....	1913 16.84-16.35	16.62-15.97	16.89-16.46	16.73 -	16.51-15.43	17.27 -		
".....	1914 14.67-14.23	14.18-13.58	14.61-14.01	- -	15.05-14.12	- -		
".....	1915 18.41-17.54	18.58-17.60	18.47-17.49	18.53-18.52	16.68-15.97	- -		
".....	1916 21.55-20.86	21.59-20.80	22.36-21.08	21.88-21.61	20.42-19.52	18.47-18.24		

## AGRICULTURE.

## 26. Monthly Range of Average Prices in British Markets of Canadian Bacon and Hams, 1913-1916--concluded.

(Per cwt. of 100 lb.)

## BACON.

Date.	SIDES.				CUMBERLAND CUT.			
	Bristol.		Liverpool.		London.		Glasgow.	
Averages for—	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
June.....1913	16.40-15.92	15.92-15.21	16.68-16.24	—	—	16.62-15.81	17.38	—
".....1914	14.40-14.01	13.85-13.04	14.29-13.69	—	—	14.94-14.18	—	—
".....1915	19.30-18.60	18.95-18.42	19.13-18.51	18.91-18.31	18.02-17.38	—	—	—
".....1916	20.78-20.22	20.53-19.46	21.33-20.00	20.86-20.88	19.67-18.47	—	—	—
July.....1913	17.17-16.47	16.90-16.26	17.12-16.55	17.38	—	17.55-16.95	17.51	—
".....1914	13.90-13.04	13.90-12.81	14.34-13.43	—	—	14.60-13.78	—	—
".....1915	18.97-18.13	19.13-16.89	19.13-18.19	19.02-18.69	17.81-17.16	—	—	—
".....1916	21.88-20.94	21.66-20.58	22.32-21.35	21.80-22.10	20.22-18.91	—	—	—
August.....1913	17.70-16.93	17.23-16.35	17.82-17.38	17.00	—	17.49-16.73	—	—
".....1914	20.33-19.56	19.02-18.11	19.19-16.62	—	—	20.26-19.49	—	—
".....1915	19.35-18.52	19.29-17.11	19.57-18.68	19.18-18.69	17.71-16.89	—	—	—
".....1916	23.77-23.02	23.29-22.63	23.42-22.54	24.56-25.61	—	—	—	—
September.....1913	16.84-16.24	16.73-16.14	16.79-16.35	17.38	—	17.06-16.46	—	—
".....1914	18.29-17.90	18.06-17.32	18.25-17.51	—	—	18.54-17.95	—	—
".....1915	20.84-18.16	20.57-18.47	20.66-19.56	20.66-20.26	18.77-17.12	—	—	—
".....1916	24.90-24.40	24.73-24.02	24.95-24.18	24.73-24.73	—	—	—	—
October.....1913	16.51-16.12	16.42-15.99	16.81-16.47	16.60-16.21	17.04-16.42	17.04-16.60	—	—
".....1914	16.35-15.86	15.92-15.18	16.24-15.43	—	—	17.38-16.79	—	—
".....1915	20.94-19.56	20.89-20.06	20.66-19.56	21.30-20.97	20.56-18.25	20.22	—	—
".....1916	23.64-23.20	23.75-22.93	23.64-22.76	23.64-23.31	—	—	—	—
November.....1913	15.32-14.88	14.88-14.38	15.05-14.50	15.10-14.89	16.73-16.08	16.51-16.08	—	—
".....1914	15.26-14.61	15.05-14.34	14.99-14.23	—	—	16.19-15.67	—	—
".....1915	20.61-19.56	20.60-19.95	20.66-19.56	20.72-20.44	20.55-18.69	20.00	—	—
".....1916	24.51-23.68	24.38-23.51	24.55-23.68	23.90-23.53	—	—	—	—
December.....1913	15.12-14.77	14.86-14.25	15.30-14.69	—	—	16.44-15.71	16.51-15.82	—
".....1914	15.90-15.49	15.82-15.12	15.73-15.30	—	—	14.80-14.14	—	—
".....1915	20.22-19.30	20.22-19.56	20.40-19.52	20.44-20.18	20.00-18.73	—	—	—
".....1916	—	—	—	—	—	—	—	—

## LONG CUT HAMS.

Date.	Bristol.		Liverpool.		London.		Glasgow.	
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
January.....1913	16.69-16.01	16.12-15.37	16.29-15.88	16.08-15.73	—	—	—	—
".....1914	17.49-16.51	17.17-15.75	17.11-16.46	16.19-15.32	—	—	—	—
".....1915	16.89-16.40	16.11-15.56	16.51-15.70	—	—	—	—	—
".....1916	—	—	20.99-20.33	—	—	—	—	—
February.....1913	16.95-16.08	16.78-16.01	17.05-16.59	—	—	—	—	—
".....1914	17.17-16.08	16.79-15.86	17.06-16.46	16.35-15.92	—	—	—	—
".....1915	16.19-15.49	15.40-14.69	15.86-15.15	—	—	—	—	—
".....1916	—	20.55-19.94	20.74-19.89	—	—	—	—	—
March.....1913	17.09-16.66	17.49-16.81	17.76-16.95	—	—	—	—	—
".....1914	17.00-16.13	16.84-15.80	17.06-16.35	16.44-16.00	—	—	—	—
".....1915	15.13-14.51	14.68-14.08	14.90-13.99	—	—	—	—	—
".....1916	20.84-20.00	20.42-19.52	20.28-19.30	—	—	—	—	—
April.....1913	18.73-18.25	18.91-18.03	18.52-18.17	—	—	—	—	—
".....1914	17.16-16.29	17.25-16.29	17.51-16.60	—	—	—	—	—
".....1915	15.05-14.39	14.77-14.12	15.10-14.17	—	—	—	—	—
".....1916	21.55-20.77	21.49-20.71	21.63-20.96	—	—	—	—	—
May.....1913	19.24-18.69	18.91-18.03	18.91-18.36	—	—	—	—	—
".....1914	17.39-16.40	17.28-16.19	17.76-17.01	—	—	—	—	—
".....1915	16.46-15.75	16.51-15.75	16.78-16.13	—	—	—	—	—
".....1916	21.66-20.88	21.62-20.88	21.70-20.89	—	—	—	—	—
June.....1913	19.56-18.50	19.24-18.36	19.62-18.69	—	—	—	—	—
".....1914	17.71-16.73	17.16-16.08	17.38-16.57	—	—	—	—	—
".....1915	18.65-17.85	19.13-18.25	19.43-18.69	—	—	—	—	—
".....1916	21.66-20.88	21.39-20.61	21.55-20.80	—	—	—	—	—

## PRODUCTION.

## 26.—Monthly Range of Average Prices in British Markets of Canadian Bacon and Hams, 1913-1916--concluded.

(Per cwt. of 100 lb.)

## LONG CUT HAMS.

Date.		Bristol.	Liverpool.	London.	Glasgow.
		\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
July	1913	20.04-19.74	19.87-19.08	20.31-19.74	- -
"	1914	17.81-16.95	17.34-16.47	17.60-16.64	- -
"	1915	18.97-18.08	18.64-15.56	18.09-17.11	- -
"	1916	21.77-20.95	21.66-20.88	21.61-20.88	- -
August	1913	20.83-20.11	20.44-19.67	20.72-20.33	- -
"	1914	21.10-20.29	20.26-19.27	19.34-17.93	- -
"	1915	18.47-17.49	18.24-15.75	17.60-16.30	- -
"	1916	22.63-21.75	- -	23.15-22.28	- -
September	1913	19.95-19.30	19.35-15.99	19.42-19.45	- -
"	1914	19.43-18.69	18.47-17.75	18.82-17.99	- -
"	1915	18.33-17.16	18.21-16.03	18.08-16.86	- -
"	1916	- -	- -	- -	- -
October	1913	18.43-17.82	16.94-15.90	17.74-17.17	17.03-16.60
"	1914	17.38-16.62	16.19-15.34	16.89-16.13	- -
"	1915	19.18-17.76	19.18-17.11	19.40-18.36	- -
"	1916	- -	- -	- -	- -
November	1913	17.38-16.95	16.84-15.21	17.49-17.06	16.51-16.08
"	1914	16.35-15.32	16.19-15.35	16.30-15.59	- -
"	1915	20.14-18.90	20.18-18.46	21.27-20.11	- -
"	1916	- -	- -	- -	- -
December	1913	17.64-17.21	17.17-15.21	17.72-17.21	15.73-16.08
"	1914	16.95-16.08	16.82-16.08	16.86-16.12	- -
"	1915	- -	- -	22.10-21.62	- -
"	1916	- -	- -	- -	- -

## 27.—Prices in British Markets of Canadian Cheese, 1916.

(Per cwt. of 100 lb.)

Date.		Bristol.	Liverpool.	London.	Glasgow.	Date.		Bristol.	Liverpool.	London.	Glasgow.
		\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.			\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.	\$ c. \$ c.
Jan.	5	20.66-20.00	20.66-20.00	20.88-20.44	21.22 -	July	5	20.88-20.44	20.88-20.22	21.22-20.44	19.56-19.13
"	12	20.88-20.44	20.88-20.22	21.22-20.88	21.00-20.88	"	12	20.44-19.78	20.22-19.78	20.44-20.00	19.13-18.69
"	19	21.22-20.88	21.66-20.88	21.66-21.22	22.10 -	"	19	19.56-19.13	19.24-18.80	18.69-17.81	18.47-18.24
"	26	21.88-21.22	21.88-21.00	22.10-21.44	22.10 -	"	26	20.22-19.56	19.78-19.13	19.56-19.13	- -
Average		21.16-20.64	21.27-20.53	21.47-21.00	21.61-20.88	Average		20.27-19.75	20.03-19.48	19.98-19.35	19.05-18.69
Feb.	2	21.88-21.22	22.10-21.00	21.66-21.22	22.54-22.10	Aug.	2	20.22-19.56	19.67-19.02	20.00-19.13	- -
"	9	22.10-21.22	22.10-21.00	21.66-21.22	22.10 -	"	9	20.44-19.78	20.44-19.78	20.88-20.44	20.22-20.00
"	16	22.10-21.22	21.88-21.00	21.66-21.22	22.10 -	"	16	20.88-20.22	20.88-20.22	20.88-20.22	20.88-20.44
"	23	21.88-21.00	21.88-21.00	21.66-21.22	21.66 -	"	23	20.44-19.78	20.44-19.78	20.88-20.44	21.66-21.22
Average		21.99-21.17	21.99-21.00	21.66-21.22	22.10-22.10	"	30	20.22-19.56	19.67-19.02	20.00-19.13	22.54-22.10
March	1	21.66-20.88	21.88-21.00	21.66-21.22	22.10-21.66	Average		20.44-19.78	20.22-19.56	20.53-19.87	21.32-20.94
"	8	22.10-21.22	22.00-21.00	21.66-21.22	22.10-21.88	Sept.	6	22.76-22.10	22.98-22.32	22.54-22.10	22.98-22.54
"	15	22.32-21.44	22.44-21.55	22.54-22.10	22.54-22.32	"	13	23.42-22.76	23.31-22.65	22.98-25.54	22.98 -
"	22	22.76-21.88	22.76-22.10	22.98-22.32	22.76-22.54	"	20	23.20-22.54	23.31-22.76	23.20-22.76	23.42-22.98
"	29	22.76-21.88	23.09-22.32	23.20-22.54	22.54 -	"	27	23.42-22.76	23.64-22.98	23.42-22.98	23.64-23.42
Average		22.32-21.46	22.44-21.60	22.41-21.88	22.41-22.10	Average		23.20-22.54	23.31-22.68	23.03-23.35	23.25-22.98
April	5	23.20-22.32	22.98-22.32	23.42-22.98	22.76-22.54	Oct	4	23.86-23.20	23.97-23.31	23.64-22.98	24.29-23.86
"	12	23.20-22.32	22.98-22.32	23.42-22.98	22.98-22.54	"	11	24.29-23.64	24.29-23.64	24.73-23.86	24.51 -
"	19	23.42-22.76	22.98-22.54	23.42-22.98	22.98-22.54	"	18	24.73-24.08	24.34-24.29	24.84-24.29	24.73-24.51
"	26	23.64-22.98	23.20-22.54	23.85-23.42	22.98 -	"	25	24.73-24.29	24.73-24.29	24.73-24.29	25.17-24.95
Average		23.37-22.60	23.04-22.43	23.53-23.09	22.93-22.54	Average		24.40-23.80	24.46-23.88	24.99-23.85	24.67-24.42
May	3	23.86-23.42	23.75-23.20	24.29-23.86	23.64 -	Nov.	1	24.95-24.51	25.28-24.19	24.29-24.51	24.95 -
"	10	24.51-24.08	23.97-23.53	25.17-24.73	24.29 -	"	8	25.17-24.73	25.94-24.84	27.17-24.73	25.83-25.61
"	17	25.17-24.73	24.29-23.75	25.27-24.73	25.17 -	"	15	26.05-25.17	26.72-25.39	26.50-25.61	26.05-25.61
"	24	25.17-24.73	24.29-23.86	25.17-24.73	25.17 -	"	22	26.72-26.27	27.27-26.16	27.38-26.50	- -
"	31	24.73-24.29	24.29-23.86	23.42-22.98	24.73 -	"	29	27.38-26.94	28.04-26.83	27.82-26.94	- -
Average		24.69-24.25	24.10-23.64	24.66-24.21	24.60 -	Average		26.05-25.52	26.65-25.48	26.63-25.65	25.61-25.61
June	7	23.85-23.42	- 21.88	22.98-22.54	20.88 -						
"	14	22.54-22.10	21.66-21.00	22.98-22.10	20.88 -						
"	21	21.88-21.44	21.44-20.77	22.98-22.10	20.88-20.44						
"	28	21.22-20.88	21.22-20.44	22.10-21.22	19.56-19.13						
Average		22.37-21.96	21.44-21.02	22.76-21.99	20.55-19.78						

## AGRICULTURE.

28.—Average Monthly Prices of Canadian Cheese in British Markets, 1913-1916.  
(Per cwt. of 100 lb.)

Date.		Bristol.		Liverpool.		London.		Glasgow.	
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
January.....	1913	14.12-13.29		14.02-13.37		13.79-13.73		14.08-13.69	
"	1914	15.05-14.59		15.05-14.45		15.10-14.77		15.16	-
"	1915	17.98-17.54		17.76-17.30		17.65-17.11		17.81	-
"	1916	21.16-20.64		21.27-20.53		21.47-21.00		21.61-20.88	
February.....	1913	14.12-13.25		14.02-13.58		14.01-13.69		14.12-13.69	
"	1914	15.21-14.70		14.94-14.47		15.48-14.83		15.64-15.43	
"	1915	19.45-19.13		19.40-19.16		19.67-19.19		-	-
"	1916	21.99-21.17		21.99-21.00		21.66-21.22		22.10-22.10	
March.....	1913	14.12-13.47		14.02-13.58		14.18-13.96		14.12	-
"	1914	15.38-14.67		15.21-14.55		15.54-14.88		-	-
"	1915	20.42-20.05		20.38-20.09		20.66-20.22		-	-
"	1916	22.32-21.46		22.44-21.60		22.41-21.88		22.41-22.10	
April.....	1913	13.99-13.43		13.86-13.29		14.14-13.86		14.03	-
"	1914	15.30-14.58		15.08-14.47		15.43-14.77		-	-
"	1915	21.22-20.97		20.88-20.66		21.22-20.44		-	-
"	1916	23.37-22.60		23.04-22.43		23.53-23.09		22.93-22.54	
May.....	1913	13.64-12.98		13.39-12.81		13.90-13.47		13.90-13.47	
"	1914	15.10-14.34		15.21-14.18		15.21-14.56		-	-
"	1915	21.22-21.00		-		21.22-20.55		-	-
"	1916	24.69-24.25		24.10-23.64		24.66-24.21		24.60	-
June.....	1913	13.58-12.93		13.09-12.73		13.50-12.92		13.30-12.27	
"	1914	15.16-14.23		14.10-13.47		15.21-14.45		14.12	-
"	1915	20.49-19.96		20.18-19.74		20.55-19.95		19.83	-
"	1916	22.37-21.96		21.44-21.02		22.76-21.99		20.55-19.78	
July.....	1913	14.14-13.73		13.90-13.56		14.86-13.77		13.08-13.69	
"	1914	14.12-13.65		13.73-13.37		14.18-13.78		13.99	-
"	1915	18.85-18.09		18.39-17.84		18.25-17.49		17.68-16.51	
"	1916	20.27-19.75		20.03-19.48		19.98-19.35		19.05-18.69	
August.....	1913	14.18-13.69		14.20-13.69		14.34-14.12		14.12-13.80	
"	1914	16.44-15.57		16.15-15.42		15.86-15.37		16.08	-
"	1915	17.00-16.30		16.60-16.00		16.46-15.64		16.08-15.65	
"	1916	20.44-19.78		20.22-19.56		20.53-19.87		21.32-20.94	
September.....	1913	14.53-14.04		14.51-13.98		14.59-14.34		14.51-13.32	
"	1914	16.38-15.73		16.23-15.69		16.29-15.82		16.42	-
"	1915	17.12-16.34		17.29-16.25		16.69-16.12		17.20-16.86	
"	1916	23.20-22.54		23.31-22.68		23.03-23.35		23.25-22.98	
October.....	1913	14.36-13.86		14.25-13.73		14.41-14.16		14.38	-
"	1914	16.54-16.24		16.49-16.13		16.68-16.42		16.80	-
"	1915	17.87-17.11		17.90-17.03		17.44-16.84		18.20-17.87	
"	1916	24.40-23.80		24.46-23.88		24.99-23.85		24.67-24.42	
November.....	1913	14.26-13.75		14.26-13.75		14.45-14.23		14.40	-
"	1914	16.57-16.16		16.65-16.35		16.68-16.24		16.95	-
"	1915	19.07-18.47		19.40-18.55		19.07-18.31		19.08-18.75	
"	1916	26.05-25.52		26.65-25.48		26.63-25.65		25.61-25.61	
December.....	1913	14.75-14.14		14.66-14.12		14.81-14.52		14.69	-
"	1914	17.23-16.82		17.19-16.71		17.08-16.64		17.38	-
"	1915	20.26-19.60		20.42-19.74		20.40-19.78		20.26-20.00	
"	1916	-		-		-		-	

**World's Production of Cereals and Potatoes.**—Table 29, which is compiled from the Bulletin of Agricultural and Commercial Statistics of the International Agricultural Institute, with metric weights and measures converted into Canadian equivalents, shows the areas and yields of wheat, rye, barley, oats, corn and potatoes in principal countries of the world for the years 1915 and 1916 in the northern hemisphere and for the years 1915-16 and 1916-17 in the southern hemisphere (Uruguay, Argentina, Australia and New Zealand). The table also includes, for purposes of comparison, the average acreages and yields for the five years 1909-1913 (1909-10-1913-14 for the southern hemisphere) and the areas and yields of 1916 in the form of percentages of 1915 (1915-16) and of the five-year averages. Owing to the war,



## PRODUCTION.

the table does not include data of Belgium, Serbia, and Russia in Asia, nor of the hostile powers (Germany, Austria-Hungary, Bulgaria and Turkey). For European Russia the data relate to forty-eight governments.

For wheat the data comprise twenty-four countries which in 1916 produced a total of 2,852,317,000 bushels from 225,181,000 acres, as compared with 3,783,437,000 bushels from 247,121,000 acres in 1915 and with 3,014,601,000 bushels from 221,694,000 acres, the quinquennial average. As compared with 1915 the area under wheat in 1916 was 8.9 p.c. less, whilst it is 1.3 p.c. more than the average; the yield however in 1916 was 24.6 p.c. less than that of 1915 and 5.6 p.c. less than the average. The average yield per acre for all twenty-four countries was over  $2\frac{1}{2}$  bushels less than in 1915 and was nearly one bushel less than the quinquennial average.

In the case of rye the total production in 1916 of fourteen countries was 1,011,036,000 bushels from 68,331,000 acres, as compared with 1,068,775,000 bushels from 71,026,000 acres in 1915 and with 907,831,000 bushels from 69,784,000 acres the five-year average. The area of 1916 is less than that of 1915 and than that of the average by 3.8 and 2.1 p.c. respectively, whilst the total yield is 5.4 p.c. less than that of 1915 and 11.3 p.c. above the average. The average yield per acre is about a quarter of a bushel less than in 1915 and 1.8 bushel above the average.

The total production in twenty-one countries of barley was 1,095,420,000 bushels from 53,349,000 acres, as compared with 1,194,153,000 bushels from 54,289,000 acres in 1915 and 1,084,466,000 bushels from 53,511,000 acres, the five-year average. In area the crop of 1916 was 1.7 p.c. below 1915 and 0.3 p.c. below the average, whilst in yield the percentage was 8.3 p.c. below 1915 but 1.1 p.c. above the average. The yield per acre in 1916, viz.,  $20\frac{1}{2}$  bushels, was about  $1\frac{1}{2}$  bushel below 1915 but about a quarter of a bushel above the average.

Oats, in twenty-two countries, gave a total production in 1916 of 3,204,662,000 bushels from 114,393,000 acres as against 3,645,984,000 bushels from 112,614,000 acres in 1915 and 3,087,628,000 bushels from 108,493,000 acres the quinquennial average. The figures for 1916 represent as to area percentages of 1.8 above 1915 and 5.6 above the average and as to yield 11.2 below 1915 and 4 p.c. above average. The yield per acre for all these countries was 28 bushels in 1916, or about  $4\frac{1}{4}$  bushels below 1915, and about half a bushel below the average.

Corn, in eleven countries gave a total yield in 1916 of 2,908,823,000 bushels from 131,131,000 acres, as compared with 3,548,642,000 bushels from 132,923,000 acres in 1915 and with 3,304,339,000 bushels from 129,805,000 acres the five-year average. In 1916 the acreage was 1.4 p.c. below that of 1915 and 1 p.c. above the average, whilst the yield was 17 p.c. below 1915 and 12 p.c. below average. The average yield per acre was 22.46 bushels in 1916, or  $4\frac{1}{4}$  bushels less than in 1915 and 3 bushels less than the quinquennial average. Of potatoes the yield in 1916 for nine countries was 1,055,367,000 bushels from 9,762,000 acres, as compared with 1,218,792,000 bushels from 10,080,000 acres in 1915 and 1,344,894,000 bushels from 10,437,000 acres the five-year average. The acreage in 1916 was 3.2 p.c. below 1915 and 6.5 p.c. below average; the yield was 13.4 below 1915 and 21.5 p.c. below the average, the yield per acre in 1916 being 108.11 bushels or nearly 15 bushels below 1915 and nearly 21 bushels below the five-year average.

Countries.	1915.	1916.	Five years' average 1909-13.	P.c. of average 1915.	P.c. of average 1915.	1915.	1916.	Five years' average 1909-1913.	P.c. of average 1915.	P.c. of average 1915.	1915.	1916.	Five years' average 1909-1913.
	000 acres.	000 acres.	000 acres.	p.c.	p.c.	000 bush.	000 bush.	000 bush.	p.c.	p.c.	bush. per acre.	bush. per acre.	bush. per acre.
Wheat—													
Denmark.....	164	151	113	92 0	133 2	7,983	6,026	5,344	75 5	112 8	48 62	39 85	47 14
Spain.....	10,037	10,140	9,547	101 1	106 3	139,299	152,330	130,447	109 4	116 8	13 83	15 02	13 63
France.....	13,564	12,856	16,160	94 8	79 6	222,778	214,622	317,639	96 3	67 6	16 36	16 65	19 63
England and Wales.....	2,170	1,912	1,787	88 1	107 0	67,718	55,540	55,770	82 0	99 6	31 23	29 00	31 25
Scotland.....	77	63	57	82 3	111 4	2,959	2,665	2,273	76 5	99 6	38 66	35 84	40 15
Ireland.....	87	76	43	88 3	177 6	3,238	2,827	1,597	87 3	177 0	37 47	37 03	37 17
Italy.....	12,502	11,722	11,722	93 4	99 6	170,542	176,531	183,336	103 5	96 3	13 64	15 17	15 61
Norway.....	12	14	12	110 0	110 1	284	305	306	107 0	99 7	22 20	22 30	24 68
Netherlands.....	160	136	138	84 6	98 5	5,680	4,035	4,896	71 0	82 4	35 30	29 74	35 54
Rumania.....	4,706	4,874	4,926	102 9	103 8	89,787	78,521	87,793	87 5	89 4	19 03	16 21	19 18
Russia in Europe.....	58,226	48,527	58,926	83 3	83 4	750,869	595,425	624,619	79 4	95 3	12 94	13 24	10 15
Sweden.....	299	307	245	102 6	124 4	9,170	8,978	10,321	97 9	87 0	30 63	29 29	31 78
Switzerland.....	114	124	107	109 0	118 3	3,957	3,821	3,931	96 6	115 3	34 71	30 93	41 67
Canada.....	14,675	15,370	9,945	104 7	154 5	426,747	262,781	197,119	61 6	93 2	29 08	17 10	19 82
United States.....	60,170	52,756	47,097	87 2	112 1	1,025,518	639,896	686,701	62 4	90 4	11 60	10 56	14 57
British India.....	32,475	30,143	29,215	92 8	103 2	276,730	318,005	351,766	84 4	90 4	11 60	10 56	14 57
Japan.....	1,250	1,280	1,197	102 4	107 0	25,790	24,444	24,466	94 5	101 2	20 67	19 03	20 22
Algeria.....	3,209	3,215	3,494	100 3	109 1	33,455	29,132	24,466	84 3	88 3	10 35	9 07	9 96
Egypt.....	1,582	1,415	1,314	91 3	110 2	39,148	30,544	34,814	88 3	103 0	23 83	25 28	26 47
Tunis.....	1,122	1,482	1,310	133 3	113 2	11,023	7,165	6,224	65 0	115 1	9 36	4 91	4 76
Argentina.....	10,420	16,089	10,051	98 0	100 2	172,651	70,235	147,071	40 7	47 2	10 60	4 30	9 22
Australia.....	12,331	11,536	7,603	92 0	151 7	179,627	152,089	90,469	54 7	168 1	14 30	11 20	29 30
New Zealand.....	329	219	241	66 3	80 8	7,108	5,400	7,069	76 0	76 4	21 60	24 70	8 20
Uruguay.....	950	780	791	82 1	98 6	9,867	5,890	6,519	54 6	82 7	10 40	6 70	8 20
<b>Totals and Averages.....</b>	<b>247,121</b>	<b>225,181</b>	<b>221,694</b>	<b>91 1</b>	<b>101 3</b>	<b>3,783,437</b>	<b>2,852,317</b>	<b>3,014,601</b>	<b>75 4</b>	<b>94 4</b>	<b>15 30</b>	<b>12 66</b>	<b>13 60</b>
Rye—													
Denmark.....	521	479	652										

## PRODUCTION.

29.—World's Acreage and Production of Cereals and of Potatoes, 1915-16—continued.

Countries.	1915.		1916.		Five years' average 1909-13.		P.c. of 1915.		1915.		P.c. of 1915.		Five years' average 1909-13.		1915.		1916.		Five years' average 1909-13.	
	000 acres.		000 acres.		000 acres.		p.c.		000 bush.		p.c.		000 bush.		bush. per acre.		bush. per acre.		bush. per acre.	
Barley—																				
Denmark.....	644	633	585	108.1	108.1	98.3	108.1	28,369	94,480	24,946	86.3	98.1	44,05	38.66	42.56					
Spain.....	3,786	3,886	3,510	102.6	110.7	82,764	82,764	82,764	86,864	74,890	105.0	116.3	21.93	22.30	21.19					
France.....	1,575	1,547	1,865	98.2	82.9	31,787	39,405	48,183	39,405	48,183	124.0	81.8	20.26	25.46	25.84					
England and Wales.....	1,332	1,488	1,488	108.1	80.5	37,733	43,480	50,658	43,480	50,658	115.2	85.8	30.67	32.71	34.01					
Scotland.....	149	170	191	113.6	88.9	5,234	5,234	5,234	5,234	5,234	115.2	75.2	34.94	31.75	37.55					
Ireland.....	142	156	166	106.0	90.7	5,885	6,537	7,510	6,537	7,510	111.1	87.1	41.64	43.40	45.35					
Italy.....	608	596	613	98.0	97.2	11,051	10,109	10,109	10,109	10,109	91.5	100.0	18.22	16.91	16.54					
Norway.....	89	98	89	110.8	110.8	3,026	3,026	3,026	3,026	3,026	107.3	100.0	31.60	30.85	34.01					
Netherlands.....	63	60	68	94.8	87.8	2,498	2,498	2,498	2,498	2,498	77.2	76.6	51.11	41.64	47.77					
Rumania.....	1,371	1,454	1,319	106.0	110.2	29,031	30,038	24,988	30,038	24,988	103.5	120.2	21.18	20.63	18.96					
Russia in Europe.....	27,275	25,106	25,306	92.0	98.9	475,510	442,386	417,719	475,510	442,386	93.0	105.9	17.47	17.66	16.36					
Sweden.....	438	421	448	96.2	94.2	14,558	14,558	14,558	14,558	14,558	103.0	102.2	32.53	34.76	32.16					
Switzerland.....	18	18	13	109.2	137.8	615	615	615	615	615	104.7	139.6	36.62	35.13	34.57					
Canada.....	1,803	1,708	1,572	105.5	115.0	60,690	42,770	45,275	60,690	42,770	70.4	94.4	35.55	23.79	28.71					
United States.....	7,148	7,674	7,674	107.4	107.4	228,846	180,923	181,877	228,846	180,923	99.0	102.0	31.23	32.15	30.67					
Japan.....	3,239	3,100	3,184	96.6	97.5	100,863	99,821	97,868	100,863	99,821	90.2	102.0	14.68	11.71	13.57					
Algeria.....	2,703	3,052	3,248	112.6	91.2	39,866	35,970	45,401	39,866	35,970	90.2	102.0	14.68	11.71	13.57					
Egypt.....	1,633	1,436	1,398	118.7	108.8	13,747	13,184	11,761	13,747	13,184	95.0	112.1	29.74	30.11	29.55					
Tunis.....	1,223	1,223	1,248	118.7	108.8	9,480	8,886	7,826	9,480	8,886	95.0	112.1	10.97	5.68	6.32					
Argentina.....	451	388	430	90.0	108.8	9,480	8,886	7,826	9,480	8,886	95.0	112.1	10.97	5.68	6.32					
Australia.....	171	154	154	105.8	116.9	4,169	4,169	4,169	4,169	4,169	103.6	138.7	23.20	23.20	19.63					
Totals and averages.....	54,289	53,349	53,311	98.3	99.7	1,994,153	1,995,420	1,984,466	1,994,153	1,995,420	91.7	101.1	21.97	20.53	20.29					
Oats—																				
Denmark.....	1,024	1,040	1,021	101.6	101.9	49,275	48,651	50,342	49,275	48,651	98.7	98.6	48.02	46.71	49.33					
Spain.....	1,403	1,388	1,276	99.6	109.0	34,776	30,272	27,386	34,776	30,272	87.0	120.1	24.07	21.78	21.52					
France.....	8,062	7,786	9,401	96.7	79.6	224,521	207,664	334,382	224,521	207,664	119.2	80.0	27.82	34.88	34.11					
England and Wales.....	2,085	2,085	2,085	99.8	102.2	95,315	96,003	91,212	95,315	96,003	100.7	95.0	45.66	45.82	44.61					
Scotland.....	983	991	952	100.8	104.1	44,829	41,547	41,889	44,829	41,547	99.2	98.2	45.66	41.99	44.06					
Ireland.....	1,072	1,089	1,072	98.4	102.2	64,568	58,085	61,386	64,568	58,085	90.9	95.0	59.30	54.84	58.52					
Italy.....	1,103	1,253	1,253	91.3	88.0	29,594	24,543	34,772	29,594	24,543	82.9	70.9	24.90	22.80	27.82					
Norway.....	270	297	263	110.0	112.9	11,315	10,277	11,237	11,315	10,277	90.8	91.5	41.99	34.64	42.77					
Netherlands.....	343	346	346	97.9	99.3	18,488	20,932	18,993	18,488	20,932	113.2	110.2	52.74	61.14	54.84					
Rumania.....	1,065	1,068	1,105	100.3	96.6	28,172	27,234	27,338	28,172	27,234	96.7	99.6	26.50	25.45	24.67					
Russia in Europe.....	35,651	35,422	36,121	99.6	98.3	854,498	818,794	782,552	854,498	818,794	95.8	104.6	23.88	23.09	21.78					
Sweden.....	1,954	1,954	1,958	99.2	99.8	85,941	87,600	79,196	85,941	87,600	101.9	110.6	43.56	44.87	40.41					
Switzerland.....	92	103	81	112.1	127.8	5,278	6,348	4,503	5,278	6,348	120.3	142.1	57.20	61.40	55.63					

Countries.

Countries.	1915.	1916.	Five years' average 1909-15.	P.c. of average 1915.	P.c. of average 1915.	1915.	1916.	Five years' average 1909-1913.	P.c. of average 1915.	P.c. of average 1915.	1915.	1916.	Five years' average 1909-1913.
	000 acres.	000 acres.	000 acres.	p.c.	p.c.	000 bush.	000 bush.	000 bush.	p.c.	p.c.	bush. per acre.	bush. per acre.	bush. per acre.
Oats—con.													
Canada.....	11,425	13,314	9,597	116.5	135.7	523,684	410,211	351,090	78.3	110.9	45.84	37.30	36.64
United States.....	40,397	41,540	37,558	101.3	108.7	1,457,914	1,178,348	1,064,037	80.8	108.7	35.69	28.34	28.66
Japan.....	162	158	111	97.3	142.2	6,664	4,718	5,852	83.5	118.3	25.49	35.42	42.51
Algeria.....	580	536	456	90.8	117.3	7,084	12,398	12,877	174.3	96.0	12.07	23.09	28.34
Tunis.....	148	164	136	110.4	120.5	3,242	1,945	3,546	60.0	54.9	21.78	11.81	25.98
Argentina.....	2,565	2,525	2,396	98.5	105.4	70,853	29,912	51,063	42.2	58.6	27.60	11.80	21.25
Australia.....	725	724	745	99.9	97.2	19,045	19,530	16,305	102.5	119.8	26.20	27.00	21.78
New Zealand.....	640	548	366	85.7	149.7	8,779	6,423	16,433	73.2	52.3	13.60	11.86	44.87
Uruguay.....	105	142	63	134.7	215.6	1,209	1,813	1,209	84.4	150.3	18.37	12.86	18.37
Totals and Averages.	112,614	114,393	108,493	101.8	105.6	3,645,984	3,204,662	3,087,628	88.8	104.0	32.27	28.00	28.46
Corn—													
Spain.....	1,152	1,154	1,134	100.2	101.8	29,093	28,642	26,548	98.4	107.9	25.33	24.85	23.42
Italy.....	3,887	3,890	3,973	97.5	96.4	121,825	78,736	100,343	64.6	78.5	31.39	20.55	25.33
Roumania.....	5,207	5,056	5,150	98.2	98.2	98,421	71,990	107,486	—	—	18.90	—	20.87
Russia in Europe.....	3,917	3,666	3,423	93.6	93.5	78,543	152	70,217	91.7	102.5	20.07	19.60	17.84
Switzerland.....	34	3	3	110.3	114.3	138	152	113	110.0	133.9	40.94	40.94	34.89
Canada.....	253	173	308	56.1	56.1	14,368	6,282	17,297	43.7	36.3	56.72	36.31	56.00
United States.....	106,198	105,953	104,231	99.8	101.7	2,994,708	2,583,212	2,708,321	96.4	96.4	25.20	24.38	25.97
Japan.....	1,407	1,157	1,333	109.1	118.3	3,749	4,100	3,424	109.4	119.7	25.97	26.13	25.81
Egypt.....	1,880	1,880	1,880	97.0	98.0	39,804	93,862	68,822	171.7	99.3	20.87	36.96	36.48
Argentina.....	9,931	8,968	8,710	90.3	103.0	161,134	58,840	191,700	36.5	30.7	16.30	6.50	21.99
Australia.....	324	319	352	98.5	90.2	6,769	8,500	10,077	125.0	84.3	20.00	26.60	28.52
Totals and Averages.	132,923	131,131	129,805	98.6	101.0	3,548,642	2,908,823	3,304,339	88.0	88.0	26.69	22.46	25.46
Potatoes—													
France.....	3,323	3,222	3,522	97.0	84.3	345,354	335,510	484,862	97.1	69.2	103.94	104.10	126.84
England and Wales.....	463	438	434	92.3	98.6	106,702	93,478	99,890	87.6	93.6	230.33	218.45	230.18
Scotland.....	144	130	144	90.1	90.2	36,291	19,825	34,674	54.6	57.4	251.30	152.41	240.44
Ireland.....	594	586	568	98.5	99.7	138,509	90,845	119,874	65.6	75.8	233.01	154.94	230.72
Italy.....	725	709	709	100.5	102.8	56,769	54,278	60,807	95.6	89.3	78.36	74.50	85.64
Netherlands.....	424	413	413	97.3	100.4	87,757	73,686	87,574	84.0	84.1	206.84	174.44	212.93
Canada.....	479	443	483	98.7	97.9	62,605	63,297	77,873	101.1	81.3	130.85	133.82	161.15
United States.....	3,724	3,550	3,677	95.1	96.5	359,727	285,442	354,502	79.3	80.5	96.36	80.62	96.36
Japan.....	194	231	139	119.0	136.5	25,078	39,005	24,738	157.7	129.06	168.45	146.02	146.02
Totals and Averages.	10,080	9,762	10,437	96.8	93.5	1,218,792	1,055,357	1,344,894	86.6	78.5	122.91	108.11	128.90



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## AGRICULTURAL EXPERIMENT STATIONS OF CANADA.

## DOMINION EXPERIMENTAL FARMS AND STATIONS.

**Central and Branch Farms.**—Under the Experimental Farm Stations Act, 1886 (R. S. 1906, c. 73), were established a Central Experimental Farm at Ottawa for Ontario and Quebec, and four branch Farms: (1) for the Maritime Provinces at Nappan, Nova Scotia; (2) for Manitoba at Brandon; (3) for the Northwest Territories at Indian Head, Saskatchewan; and (4) for British Columbia at Agassiz. After these five Farms had continued in operation for 20 years, the first steps were taken towards their extension in number by the establishment of new Experimental Stations for Alberta, viz., one at Lethbridge in 1906 and the other at Lacombe in 1907. Since this date development in the number of the Farms and Stations, and in the work carried on by them, has been rapid and continuous; and every province has now one or more Farms or Stations.<sup>1</sup> In 1916, including the Central Farm at Ottawa, there are altogether 21 Farms and Stations with an increased acreage over 1915 of 2,213 (13 at Cap Rouge, 1,000 at Kapuskasing and 1,200 at Spirit Lake), or a total acreage of 11,148, as compared with the original five Farms, having a total acreage of 3,472, as established in 1886. Table 30 shows the present number of Farms and Stations with the acreage of each and the date of establishment.

<sup>1</sup>The five original farms established in 1886 are known as "Experimental Farms"; those added since are styled "Experimental Stations." No distinction in the work is expressed by these titles.

30.—Dominion Experimental Farms and Stations, 1916.

Farm or Station.	Province.	Acreage.	Date established.
Central Farm, Ottawa.....	Ontario.....	467	1886
Kapuskasing Station.....	Ontario.....	1,000	1916
Charlottetown Station.....	Prince Edward Island..	100	1909
Nappan Farm.....	Nova Scotia.....	300	1886
Kentville Station.....	Nova Scotia.....	294	1912
Fredericton Station.....	New Brunswick.....	520	1912
Ste. Anne de la Pocatière Station....	Quebec.....	340	1911
Cap Rouge Station.....	Quebec.....	339	1911
Lennoxville Station.....	Quebec.....	455	1914
Spirit Lake Station.....	Quebec.....	1,200	1916
Brandon Farm.....	Manitoba.....	625	1886
Morden Station.....	Manitoba.....	280	1915
Indian Head Farm.....	Saskatchewan.....	680	1886
Rosthern Station.....	Saskatchewan.....	650	1908
Scott Station.....	Saskatchewan.....	520	1910
Lacombe Station.....	Alberta.....	850	1907
Lethbridge Station.....	Alberta.....	400	1906
Invermere Station.....	British Columbia.....	53	1912
Summerland Station.....	British Columbia.....	550	1914
Agassiz Farm.....	British Columbia.....	1,400	1886
Sidney Station, Vancouver Island ...	British Columbia.....	125	1912

## AGRICULTURE.

**Range of Experiments.**—Ranging over the whole of the wide fields of agriculture, arboriculture and horticulture, the work of the Farms has included experiments and studies relating to the breeding and feeding of farm live stock, the production of butter and cheese, field crops, natural and artificial fertilizers, cereals, grasses and other forage plants, fruits, vegetables, plants, trees, plant diseases and injurious insects. The Farms are also bureaux of information to which agriculturists resort for the solution of difficulties in farm work. The experiments carried out at the Central and branch Farms and Stations have been fully described in the annual reports of the Director and of his staff.

In addition to the farms and stations included in Table 30 there are seven small substations at Salmon Arm, British Columbia, at Fort Vermilion, Grouard and Beaver Lodge in Alberta, and at Forts Smith, Resolution and Providence, in the Northwest Territories.

**Scientific Organization.**—The more strictly scientific side of the work is carried on at the Central Experimental Farm at Ottawa, and is organized in thirteen divisions as follows: (1) Field Husbandry; (2) Animal Husbandry; (3) Horticulture; (4) Cereals; (5) Chemistry; (6) Forage Plants; (7) Botany; (8) Poultry; (9) Tobacco; (10) Economic Fibre; (11) Illustration Stations; (12) Apiculture; (13) Extension and Publicity. What was formerly the Entomological Division became in 1914 the separate Entomological Branch of the Department of Agriculture.

**Results Achieved.**—Only brief mention is possible of the more striking results already achieved, with some indication of the work now being carried on. In the field of general agriculture, the importance of early sowing was demonstrated by a series of experiments which lasted for ten years, 1890–99. Under average seasonal conditions, it is now recognized that seeding should be completed as early as possible. As the result of experiments on the branch Farms in the West, the practice of summer fallowing for the conservation of moisture and the destruction of weeds is widely followed in the Prairie Provinces. Experiments continued for 18 years, 1893–1910, have shown over large areas in Canada the economic advantage of applying fresh as compared with rotted farmyard manure. They indicated that a given weight of manure taken fresh from the farmyard is equal in crop-producing power to the same weight of rotted manure, and that fresh manure loses in the process of rotting from 50 to 60 per cent of its weight. The great value of clover as a fertilizer when ploughed in has also been demonstrated by continuous experiments lasting from 1894 to 1906. From the establishment of the Farms, free samples of pure seed of new and tested varieties of grain and of potatoes have been annually distributed to farmers throughout Canada, with important results in improving the harvests of the country. In the Cereal Division, notable work has been done in the production of new varieties of grain, especially wheat possessing the qualities of productiveness, an early ripening habit and good baking strength. Varieties of wheat known as Preston, Stanley and Huron are all vigorous and productive, and ripen early; but the variety that has achieved the greatest success is the

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Marquis, which is equal to the Red Fife in baking qualities, ripens from five to ten days earlier and is superior in productiveness. It is now rapidly superseding the Red Fife throughout the Northwest.

**Other Experiments.**—Experiments, carried on over a series of years by the Field Husbandry Division, show the advisability of a rotation which includes a cereal crop, a hay crop (including clover) and a root crop. Experience has also shown that the shorter the rotation the greater are the profits, and that the most profitable rotation is one of three years: corn, or other hoed crop, grain, hay. In the Division of Animal Husbandry, extensive breeding experiments are in progress. It has been found that nothing in this line is more profitable to a farmer than investing in a really good pure-bred sire for the grading up of his cattle, care being taken to adhere to one breed. This is true whether as applied to horses, beef cattle, dairy cattle, sheep or swine. So far as production is concerned, the well graded-up animal has been proved to be just as profitable as the pure-bred. Important work has been done in the demonstration of effectively ventilated stables and cow barns. The Division of Horticulture carries out numerous experiments with apples, plums, cherries, grapes, small fruits and vegetables. Many varieties have in past years been tested, and promising seedlings for different latitudes have been recommended to growers. The object of the experiments with apples has been to obtain, by cross fertilization and selection, new varieties that will stand the severe winters of Quebec, of the more northern parts of Ontario and of the Prairie Provinces; also varieties of better-keeping qualities. Experiments were begun in 1915 to test the possibility of growing root and vegetable seeds in Canada instead of importing them from abroad. So far as they have gone, the experiments have proved successful and are being continued. In the Division of Botany, investigations of the diseases of cultivated plants are carried on at Ottawa and at the field laboratories of St. Catharines, Ont., Fredericton, N.B., and Charlottetown, P.E.I. Reports are made on diseased plant specimens sent in, and advice is given as to remedial measures wherever possible. Weeds are identified and methods of eradication recommended. Wild plants from all parts of Canada are received for identification, and information is furnished as to whether they are edible, medicinal or poisonous. Tests are also made as to the suitability of the climate of Canada for the growth of various plants of economic importance, such as fibre plants (flax, hemp), medicinal plants (opium-poppy, anise, etc.), oil-yielding plants (castor oil, soy bean) and miscellaneous plants (mustard, chicory, etc.). Much has been accomplished in arboriculture not only by the setting apart of 65 acres at the Central Experimental Farm for the testing of trees and shrubs from all parts of the world, but also by the encouragement given to tree-planting in the western provinces.

The Division of Chemistry covers a large field, and the Dominion Chemist, who is also Assistant Director of the Farms, controls a staff of nine fully qualified chemists. Investigations have been conducted to determine the nutritive value of fodder plants—Indian corn, grasses, clovers, etc.—by analyses at different stages of their growth. Canadian grown cereals have been analysed to ascertain their quality and nutritive



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value, and the straw has also been examined to determine its value as fodder. Analyses have been made of soils from different parts of the Dominion, more particularly from the large untilled virgin area of the Northwest. Investigations have been made into the production, fermentation and application of farmyard manures. Many experiments have been conducted to throw light on the factors affecting soil moisture, and means have been suggested whereby the desired conditions of moisture may, to a great extent, be obtained and controlled by cultural operations. The influence of environment on the composition of wheat has been studied since 1905, and the work has now been enlarged, through co-operation with the Dominion Meteorological Service at Toronto, to secure a more comprehensive and detailed study of the relationship between weather conditions and crop growth. Analyses of sugar beets have been useful in demonstrating the suitability of soil and climate at widely different points of the Dominion for the growth of roots of high sugar content and purity. Well waters from farm homesteads have been the subject of special study. Numerous analyses are made in conjunction with problems relating to the land, the crop and the animal which from time to time are submitted by farmers for solution. Analyses are also made of dye stuffs, preservatives, pickling solutions, etc., for the Meat Inspection Division of the Health of Animals Branch of the Department, with a view to the detection of injurious substances. Systematic investigational work with commercial fertilizers is now being carried on at the larger number of the branch Farms and Stations. Owing to the scarcity of potash caused by the European war, the preparation of a nitro-potassic fertilizer by the drying and grinding of seaweed was undertaken at a point on the coast of Nova Scotia. The fertilizing value of the material so prepared is being tested in the field.

The Poultry Division undertakes experiments in the breeding, mating, incubating, brooding, rearing, housing and feeding of farm poultry, in the production of eggs, the preparation of poultry produce for the market and the study of poultry diseases. Demonstrations in poultry keeping are made at Ottawa and at the branch Farms and Stations, these latter being chiefly for the purpose of proving locally that farm poultry rather than the poultry farm is profitable, and for the distribution of improved breeding stock to farmers.

**Recent Developments.**—Experiments in the growth of tobacco are carried on by an expert from France at Ottawa, assisted by local superintendents at the tobacco stations of St. Jacques l'Achigan, and Farnham, Quebec and Harrow, Ontario. These experiments include the testing of different varieties to suit the Canadian soil and climate, the best means of curing and the preparation of different kinds of tobacco for the market. In 1912 a Division of Forage Plants was established under the direction of a scientific officer from the Plant Breeding Station at Svalöf in Sweden. The Division has for its object improvement in the quality and yield of grasses, clovers, alfalfas and other forage crops grown in Canada. An Economic Fibre Division was established at Ottawa early in 1916 to investigate the possibilities of the flax fibre industry in Canada. A flax mill has been completed at



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the Central Farm. During 1916 tests were carried on with flax-pulling machines, as well as in the growing of flax in different parts of the country. Hemp growing is also being tried.

Illustration Stations were started in 1914 by the selection of small areas at different points in Saskatchewan and Alberta, the object being to show to farmers in the districts selected the best cultural and crop methods. Early in 1915 the Illustration Station work inaugurated by the Commission of Conservation was taken over by the Experimental Farms Branch. In 1915 a Division of Extension and Publicity was formed for the purpose of making the work of the Experimental Farms more widely known amongst the farmers of Canada. The Division issues every four months a publication entitled "Seasonable Hints," which gives timely notes and advice to help the farmer in his current work.

## PROVINCIAL AGRICULTURAL EXPERIMENTS.

## NOVA SCOTIA.

**College of Agriculture, Truro.**—About 400 acres are devoted to general farming and gardening and to investigations, of which the following are some of the more important. Experiments occupying upwards of 70 acres have been laid out to determine and demonstrate over a period of years the returns from all crops from the application of ground limestone. Results to date are to be found in the Annual Report of the Secretary for Agriculture; they indicate marked returns from clover, and almost as marked returns from turnips, but very slight results from other crops. However, at least two rotations (eight years) must pass by before a comprehensive statement can be issued. Club root has been controlled in turnips and in cabbage, in varying degrees, by the application of burnt and ground limestone. Experiments have been conducted in the growing of oats, peas and vetches (now called O. P. V.) in comparison with corn for silage purposes, and the results under the climatic conditions in Nova Scotia have proved very satisfactorily in favour of O.P.V. Fertilizer experiments are being conducted on an extensive scale. The most important is designed to determine the value of acid phosphate, basic slag and bone meal as sources of phosphoric acid. A permanent pasture experiment to be continued over a course of years is giving striking results from the top dressing of pasture land with commercial fertilizer.

Besides carrying on experiments with varieties of oats, wheat, barley, etc., notable results have been obtained by combining strains of these respective varieties. In the stable and piggery, experiments with different feeds and on the cost of producing milk, etc., are being conducted. In the Horticultural Department experiments have been laid out to study the value of ground limestone not only for garden crops but for trees as well; also the control of club root in cabbage, cauliflower, turnips, etc., by the application of crushed and burnt limestone, is being carefully investigated. The influence of various stocks of the apple on the scion is being studied, and collections of the common cherries and plums, formerly cultivated but now growing almost wild, have been made with a view to studying their value for fruiting and as

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hardy stocks. Variety tests in strawberries and various garden crops are being continued, and an experiment has been laid out to show the value of ploughing under clover sod both from the standpoint of increased crop production and the control of disease. The hill selection of potatoes is being combined with a variety investigation. In the chemical, entomological, and botanical laboratories experiments are being conducted, the more important of which relate to a soil survey of the province, a study of the life history of insects and fungi affecting apple trees and various cultivated plants.

## QUEBEC.

**Macdonald College, Ste. Anne de Bellevue.**—The College is situated about 20 miles west of Montreal and is incorporated with McGill University. The College property comprises 786 acres divided as follows: main farm, 584 acres; cereal husbandry plots, 75 acres; poultry department, 17 acres; orchards, 35 acres; vegetable gardens 25 acres; the campus, including driveways, lawns, trees, shrubs, flowerbeds, school garden and recreation fields for students of both sexes, 50 acres. The following is a brief indication of the more important experiments, as to which further information may be obtained from the College report of 1916-17.

*Animal Husbandry.*—In the Animal Husbandry Department some results of special interest were obtained during 1916. Returns from the demonstration sheepflocks show an increased cost of maintenance, the average total cost per breeding ewe being \$3.97 per year. The commercial returns per ewe averaged \$10.70, the fleece value amounting to \$2.40 of this, and the net profit per ewe was \$6.73. The self-feeder for swine was introduced, and an experiment on the "Cafeteria" plan proved very suggestive for further work. The hogs fed with the self-feeder were allowed four kinds of meal: shorts, ground corn, tankage, ground oats and barley mixed. These were placed in separate compartments in the feeder, and water was supplied in the regular troughs. The pigs that had access to the feeder made an average daily gain of 1.2 lb., and for each pound of gain 4.66 lb. of meal were required. Those fed on the same feeds by hand three times a day averaged 1 lb. per day and required 4.99 lb. of meal per pound of gain. Other lots of hogs were allowed different amounts of exercise during development from weaning time. The hogs that were closely confined required more care to keep them clean, but led all others in rate and economy of gain, as the following results show:—

Close confinement—1.1 lb. average daily gain, requiring 3.44 lb. of meal per pound gain.

Limited exercise—0.95 lb. average daily gain, requiring 3.70 lb. of meal per pound gain.

Large paddock—1.92 lb. average daily gain, requiring 3.96 lb. of meal per pound gain.

The dressing percentages of the different lots were in the reverse order, ranging from 74.4 for the large paddock lot to 71.7 for the close confinement lot.

*Cereal Husbandry.*—The improvement of farm crops by selection and breeding receives close attention. This work is carried on with

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all the principal farm crops: oats, wheat, barley, peas, rye, corn, root crops, alfalfa, grasses and clovers. One improved variety of corn called "Quebec No. 28" has been distributed, and has given a good account of itself throughout Quebec and parts of Ontario. It is an exceedingly early, heavy yielding, yellow flint corn that usually ripens in about ninety days. Improved strains of both wheat and oats are being increased for general distribution. Root crop investigations have been carried on for eight years mainly at the College, but also at several points in the province. As a result of the breeding work, improved strains of both mangolds and swede turnips have been secured, and seed has been sold to a number of growers of root seed in Ontario and Quebec. Root seed growing has been given more than usual attention during the past two years, partly on account of the restricted supply of good seed available from Europe, and partly because home grown seed has been found to give such superior results. Much careful work has been done with alfalfa to get definite data as to its value for Quebec. Over two hundred varieties and strains have been thoroughly tested as to hardiness during the past nine years, and less than half a dozen have proved suitable for Quebec conditions. Grimm, Ontario variegated and Baltic are the only varieties that have proved hardy and that may be obtained commercially. The high price asked for the seed of these varieties is such a serious obstacle to their being purchased that for several years experiments in seed growing have been carried on in the department. The results have been gratifying, and indicate that profitable crops of seed of Grimm may be grown in Quebec in most years. It is necessary to sow the seed thinly in rows about thirty inches apart, cultivate to keep clean and to allow the second crop to ripen seed. Seed has also been grown successfully at several points in the province. A number of additional experiments have been started at points in the country and observations have been continued on plots already established. The results show clearly the necessity of using a hardy variety, of draining the land and of using either lime or ground limestone to correct soil acidity. Experiments with varieties of fodder corn are being continued, both on the experimental grounds and at several points in the country, to get accurate data on varieties and rates of planting. The breeding of improved strains of timothy, orchard grass and red clover has now been carried on for five years. Good progress has been made, but no strains are yet available for distribution.

*Other Departments.*—Numerous other investigations are being carried on in the departments of Poultry, Chemistry, Bacteriology, Horticulture, Biology and Physics.

**Oka Agricultural Institute.**—This, situated on the Lake of Two Mountains, about 20 miles from Montreal, is one of the oldest experimental farms in Canada. A large number of dairy cattle are kept, and experimental work is carried on with these and with swine, poultry and bees. Horticulture is practised largely; the growth of small fruits is a specialty and the vineyards are celebrated. The famous Oka cheese, made at this Institute, is sold widely in North America. The Institute was affiliated to Laval University, Montreal, March 25, 1908.



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**School of Agriculture, Ste. Anne de la Pocatière.**—The school owns more than 500 acres of land. Besides general cultivation a number of experiments are carried on. Thus in 1915 experiments were undertaken with certain forage plants not well known in the district. The seeds were sown on a sandy soil in lots of one-fiftieth of an acre with a cereal (wheat) for cover crop. The following is a list of the grasses sown: Kentucky Blue Grass (*Poa pratensis*), Tall Oat Grass (*Arrhenatherum elatius*), Cocksfoot (*Dactylis glomerata*), Perennial Rye Grass (*Lolium perenne*), Italian Rye Grass (*Lolium multiflorum*), Meadow Festuca (*Festuca elatior*), Sheep's Fescue (*Festuca ovina*), Red Top (*Agrostis stolonifera*), Common Agrostis (*Agrostis vulgaris*), Brome Grass (*Bromus inermis*). The plants which appeared to be the most robust during the summer of 1916, as well as the earliest, were Cocksfoot and the Tall Oat Grass. Sheep's Fescue also made a thick turf, and appeared to suit admirably sheep pastures on light soil. Alfalfa and sainfoin were also tried. The alfalfa grew vigorously during the first days of spring, the first cut being on May 24 and the second on July 10. The third growth was left as protection during the winter. During 1916 experiments were carried on with root crops; they included 12 varieties of mangolds and half-sugar beets and four varieties of sugar beets. The plots were each one-twentieth of an acre on heavy clay and had been manured in the spring at the rate of 15 to 20 tons of dung per acre. The results gave yields varying from 18 to 34 tons per acre for the mangolds and from 9 to 13 tons per acre for the sugar beets. Experiments were also made with several varieties of swede turnips and of fodder carrots. Satisfactory results have been obtained with the cultivation of beet for seed.

## ONTARIO.

**Ontario Agricultural College and Experimental Farm, Guelph.**—The College and Experimental Station were established in 1874 to train young farmers in the science and practice of agriculture and to conduct agricultural experiments for the benefit of the province. The land property consists of a little more than 700 acres of average loam soil. The farm property consists of 500 acres, experimental plots about 100 acres, and campus and woodlots the remainder. The growth of the institution as an educational centre has been very rapid. Academic work at the present time requires the space and equipment of sixteen large buildings for dormitories, class rooms and laboratories. Courses offered include a four year course for the degree of B.S.A., a two year course for the Associate Diploma, short winter courses for farmers and farmers' sons, summer courses for teachers of the province, and domestic science courses at Macdonald Institute. Over seventy-five professors, lecturers, demonstrators and investigators are on the teaching and experimental staff. In 1874 the College opened with 28 students. The total enrolment in long and short courses in the academic year 1914-15 was 1,184. Since the commencement of the war, the attendance, naturally, has been considerably reduced. The entire plant represents an outlay of about two million dollars. The following is a brief summary of the research and experimental work.



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*Department of Field Husbandry.*—About 75 acres of the College farm at Guelph are set aside for field experiments with farm crops. This area is divided into about 2,500 plots. The experiments include tests with varieties of farm crops, selection of seed, hybridization, dates of seeding, quantities of seed per acre, methods of cultivation, application of fertilizers and manures, the production of grains and grasses in different combinations, etc. The results are issued from time to time in the form of reports, bulletins and newspaper articles. Not only do they furnish real information in regard to methods to be adopted, but the Field Husbandry Department has been successful in originating and introducing good varieties which have been of great value to the crop production of the province. The O.A.C. No. 21 barley has crowded out practically all other varieties until it is now grown in nearly every part of the province. The O.A.C. No. 72 oats are increasing very rapidly and are sure to be worth millions of dollars to Ontario. The O.A.C. No. 3 variety of oats, which is ten days earlier than the O.A.C. No. 72 variety, is especially adapted for mixing with barley when it is desirable to grow the two in combination. The experiments have shown that when the right varieties and the right proportions are used about 200 lb. of increase in grain per acre is obtained as compared with the results from either one grown separately. Other varieties which the College has been instrumental in originating, improving or, in some cases, in simply distributing are the O. A. C. No. 61 spring rye, Petkus winter rye, Rye or Rough buckwheat, Pearce's Improved Tree bean, Canadian Beauty peas, Ontario Variegated alfalfa, Grimm alfalfa, Salzer's North Dakota corn, Wisconsin No. 7 corn, Gold Nugget corn, Davies' Warrior potatoes, Empire State potatoes, Extra Early Eureka potatoes, etc. The experiments in Field Husbandry at Guelph, in association with the co-operative experiments on thousands of farms throughout Ontario conducted through the medium of the Experimental Union, are having great influence on the agriculture of the province.

*Animal Husbandry Department.*—This department has charge of the farm and all the stock including the dairy herd. Experiments are conducted every year with rations for cattle, sheep and swine. A system of Farm Cost Accounting is used for the purpose of evolving a system which can be applied to farms throughout the province. Each year in October an auction sale of surplus stock is held.

*Department of Horticulture.*—The work undertaken includes experiments with varieties of fruits, vegetables, shrubs and flowers; studies and research in plant breeding; co-operative experiments in summer pruning, top grafting and root pruning; the testing of Canadian grown vegetable seeds; the preparation of plans for the beautifying of school grounds.

*Department of Chemistry.*—Experiments in the chemical treatment of various types of soils at several points in the province are carried on. Plots for fertilizer experiments with different crops are maintained at the College and on the light sandy soils of Norfolk county. Varieties of wheat are milled and the flour tested to determine baking qualities. Many samples of soil, water, condiments, stock foods, fertilizers and spray materials are analysed and reported upon.

## AGRICULTURE.

*Dairy Department.*—Investigational work in this department relates to soft and fancy cheese, fermented milks, cheddar cheese, home-made-rennet, buttermaking in the creamery and the farm dairy, pasteurization and other experiments with dairy products.

*Poultry Department.*—Experiments are made in the feeding of laying hens and in fattening, the development of laying strains and the distribution of eggs from these strains throughout the province and with different types of poultry houses for town and farm use.

*Department of Physics.*—Much research work is being done in soil temperatures, lightning rods, insulating materials, the manufacture of drainage tile, etc. A staff of surveyors is maintained during the summer months to survey farm land for underdrainage, the farmer bearing only part of the surveyor's travelling expenses. The yearly average area surveyed is about 15,000 acres.

*Department of Bacteriology.*—Researches are made into the bacterial diseases of plants and animals; cultures of legume bacteria are distributed amongst farmers; lactic cultures are prepared for cheese factories and creameries; samples of water, food, etc., are tested for bacterial content.

*Department of Entomology.*—The insect pests of the province are investigated and means of control determined. Insect specimens and injuries are identified. New spray mixtures are tested.

*Department of Botany.*—Weeds, weed seeds and fungous diseases are identified, and samples of seed grain, clover, alfalfa and grass seed are examined as to purity. Fungus diseases of Ontario are investigated and means of control determined. Co-operative experiments in weed eradication are carried on.

*Department of Apiculture.*—Various breeds of bees are kept for comparison. Experiments are conducted at the College and co-operatively throughout the province in apiary management. A staff of inspectors visits the apiaries of the province to destroy foul brood and other diseases.

## MANITOBA.

**College of Agriculture, Winnipeg.**—The Field Husbandry experimental work was inaugurated in the spring of 1915. In organizing this branch of the College work it was divided into three divisions: Cereal Crops, Forage Crops and Soil and Crop Management. The work in the Cereal division consists of making variety tests and endeavouring to improve the better varieties by selection and hybridization. The object of the Forage Crop division is to secure and improve plants for the production of pasture and winter feed for the live stock. The improvement is being brought about by selection and hybridization. Among the crops that are thus the subject of experiment are alfalfa, red clover, sweet clover, timothy, western rye grass and brome grass. Some work is also under way in the improvement of fodder corn and field roots. The experiments in soil and crop management were outlined to answer the questions that farmers are asking in regard to the management of their soil and crops. It includes in all about 64 experiments and upwards of 1,000 plots. The departments of Botany, Horticulture, Engineering and Animal Husbandry are also doing considerable investigational work.

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## SASKATCHEWAN.

**College of Agriculture, Saskatoon.**—The College has a farm of 880 acres which is devoted to diversified agriculture. Wheat, oats, barley, peas, flax, corn, roots, western rye grass and alfalfa are produced both as money crops and for the purpose of feeding to stock. Horses, cattle, sheep, swine and poultry are maintained in numbers both for class work and for experimentation. Investigations are being made to ascertain the carrying powers of prairie lands under different crops for the production of meat and milk; in grading up farm flocks from the common range ewes; cheap housing for sheep, swine and poultry; silage production from crops other than corn, such as oats, and peas, sweet clover, alfalfa; feeding of steers in the open. Another quarter section has been set aside for investigations in tillage, crop production, crop improvement, variety tests and rotations. Tillage has to do with the preparation of (1) prairie; (2) stubble; (3) summer-fallow. Crop management and variety work includes the trial of every known field crop grown in the West under different conditions and times of planting, tilling and harvesting. Rotations that include 120 annual and perennial crops in every possible combination are under trial. The effects of different artificial fertilizers both singly, in combination with each other and with farmyard manure—green and rotted—are being tried on the maturity, yield and quality of various crops over a series of years. Garden and fruit crops are being introduced for the purpose of testing varieties and methods of management under prairie conditions. The same is being done with trees, shrubs and flowers.

## ALBERTA.

**College of Agriculture, Edmonton South.**—A College of Agriculture has been established at the new University of Alberta, Edmonton South. Students completing two years at the Provincial Schools of Agriculture enter the College for a three-years course leading to the degree of Bachelor of the Science of Agriculture. (B.S.A.). At present over 100 acres of land are available for experimental work in cereals, grasses, clovers, hoed crops, small fruits, vegetables and flowers. Work is being started with soils, and an excellent foundation stock has been secured in pure-bred cattle, sheep and hogs.

**Experimental Plots and Agricultural Schools.**—Experimental work at each of the three provincial Schools of Agriculture at Claresholm, Olds and Vermilion has been carried on by the Department of Agriculture since October, 1914. The schools are attended principally by young men and women who intend to go back to the farm. The following is a description of the work carried on at each School.

**Claresholm.**—Adjacent to the Agricultural School buildings, on the Demonstration Farm at Claresholm, are twenty acres devoted to experimental work with grains, grasses, fodder crops, field roots, vegetables, small roots, flowers, trees and shrubs. In the grain section, variety tests are made with wheat, oats, barley, peas, flax and rye. Experiments are conducted for the purpose of comparing yield and quality of grain on summer-fallow, corn land, root land, stubbling in, spring and fall ploughing, packing and not packing, harrowing after seeding



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when the grain is up, depths of seeding, rates of seeding, dates of seeding, etc. A system of crop rotation is being worked out. The grain plots are one-fortieth of an acre in size. Special attention is given to seed selection. Banner oats and Marquis wheat are being grown under the rules of the Canadian Seed Growers' Association. Students in attendance at the school, and farmers in the district, can secure small quantities of Elite and First Generation seed. Corn and peas are being given special attention with the object of discovering a variety of each that will mature annually in southern Alberta.

Much attention is given to grasses, clovers and alfalfas, and so far results are encouraging. It has been demonstrated that alfalfa, white Dutch clover, sweet clovers and alsike do well in southern Alberta. Efforts are being made to obtain a satisfactory permanent grass mixture: Ten different varieties of potatoes, garden vegetables, purple top swedes and white turnips are being tested out. Trees have been planted to serve as wind breaks. Ornamental trees and shrubs of various kinds, annual and perennial flowers have also been started with encouraging results. A start has been made with small fruits: these will receive more attention when the wind breaks afford sufficient shelter.

*Olds.*—Experiments are in progress to ascertain the varieties of wheat, oats and barley that will grow most successfully in the district and also the best dates and rates for the seeding of grain. Cultural methods are being tried and attention is being paid to roots, especially turnips. With mangolds and sugar beets indifferent success has so far been experienced. Other work started has reference to gardening, the use of vegetables best adapted to the locality and the most suitable varieties of grasses and legumes. Alfalfa has been fairly successful both in broadcast plots and in rows. Amongst six or seven varieties of grasses, timothy, brome and western rye give good promise.

*Vermilion.*—The Vermilion School of Agriculture was established in 1913 for the training of farmers' sons and daughters in the principles of practical farming and housekeeping, and for conducting agricultural investigations. The school course is of two years' duration with five months each year. The experimental area consists of twenty acres divided as follows: campus, including buildings, driveways, lawns, trees, shrubs, five acres; experimental area for horticultural and agronomy plots, fifteen acres. On these plots experiments are being conducted in rotation, variety tests and cultural methods of crop production. The investigations began in 1914, and deal with questions that are more or less vital to the districts in central and eastern Alberta. Fairly elaborate experiments on crop management include trials of every common field and garden crop in Alberta under dates, rates, and methods of seeding and harvesting. Many varieties of fruits, shrubs and trees are being tried out in regard to their adaptability to soil and climate. Different varieties and strains of alfalfa, grasses and clovers are being investigated with the object of obtaining crops superior in hardiness and yielding qualities. A considerable amount of work in plant breeding is under way, head and plant selection with cereals, grasses, alfalfas and clovers being followed. Improvement work is in progress



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with potatoes. Experiments in cultural methods include comparisons in crop yields when grown on spring or fall ploughed stubble, summer-fallow or hoed crop ground, harrowing after crops are up, packer versus no packer, etc. The school produces registered seed for multiplication on the demonstration farms, and experiments are organized amongst students for carrying out on their respective farms.

## BRITISH COLUMBIA.

**Department of Agriculture.**—Experiments are being carried out by the Live Stock and Horticulture branches. The Live Stock branch is conducting one experimental plot of 13 acres, another of 10 acres, 11 plots of from four to five acres and six one-acre alfalfa plots. Work in drainage and the correcting of the acidity in the soil is being carried out on a plot near Pitt Meadows. Where plots are located in newly-settled districts, the work naturally partakes largely of tests to determine the best crops and varieties for local conditions. On other plots a rotation system suitable for the district represented is being established. As far as possible the work is carried on in co-operation with the local Farmers' Institutes, and where practicable the plots are used as a centre of good seed production. The Horticultural branch is operating nine demonstration and experimental orchards of five acres each. These orchards are planted and cared for under a co-operative arrangement by which the owner of the land and the Department share the expense. The agreements cover a five-year period, but in some cases further agreements are being made. The principal object in most cases is to demonstrate the results which may be secured in various districts by the adoption of the best possible methods. In other cases the orchards are used for experimental tests of varieties and experimental work with cover crops, etc. Three five-acre experimental and demonstration plots are being operated in the Northern Coast section. On these plots a wide range of experimental work in the testing of varieties of grains, grasses, fodder crops, vegetables, small fruits, etc., is being conducted. An Experiment Station for small fruits and vegetables has been operated for three years at Summerland, the owner of the property receiving a direct yearly remuneration. This plot is partly on a commercial basis, and does experimental work with varieties, methods of culture, etc., on the tender kinds of vegetables and on small fruits. At Chilliwack a five-acre plot was planted with small fruits five years ago to demonstrate the possibilities of these crops in this locality. It is operated under a five-year co-operative agreement with the owner. At Hatzic, an experimental test with varieties of strawberries is being conducted on a three-year basis. In orchards at various points, experimental tests of methods of apple-scab control are being conducted over a three-year period. Other experiments with fertilizers, varieties, spraying, etc., are being carried on at numerous points.

**University of British Columbia.**—At the University site, Point Grey, 100 acres of land have been cleared and are now under crop. The experimental results obtained by the Department of Agronomy during the past two years, with all classes of field crops, have proved of great value in determining the best methods of bringing heavily timbered

## FORESTRY.

uplands under cultivation. The allotments of land made to the Departments of Agronomy and Horticulture are being specially prepared for investigational work. On the 20 acres at present devoted to these departments a wide range of experiments is being conducted. In Animal Husbandry, a dairy herd, representing several breeds, will be purchased during the summer of 1916. Special attention will be given to feed problems in connection with cattle, swine, sheep and poultry. Over 25,000 specimens of the native flora of the province, representing nearly 800 species, have been transferred to the Botanical Garden. This valuable collection constitutes a splendid nucleus for future botanical work, and is now recognized as the most representative botanical collection in British Columbia.

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Tables 31-37 consist of statistics and estimates for all forest products in Canada, as collected and published by the Forestry Branch of the Department of the Interior. Statistics collected by the Census of 1911 of forest products on occupied farm lands in Canada were published in the Year Book of 1915, at pp. 223 and 224. To the statistics of production have been added two tables showing (Table 38) the quantity and value of exports of wood pulp, by countries, for the fiscal years 1911-16, and (Table 39) the quantity and value of wood, blocks and other, exported to the United States for the fiscal years 1904-16.

**Consumption of Pulpwood, 1916.**—The steady growth of the pulp and paper industry of Canada was continued in 1916. Forty-nine firms reported their mills as active in 1916, as compared with fifty firms in 1915; but the total consumption of pulpwood and the total value of the wood used rose much above the preceding year. As shown in Table 33, the total consumption of wood pulp, which was 482,777 cords in 1908, rose to 1,405,836 cords in 1915 and 1,764,912 cords in 1916, whilst the total value of the wood used, which was \$2,931,653 in 1908, was \$9,426,217 in 1915 and \$13,104,458 in 1916. The Canadian pulp mills in 1916 consumed for the manufacture of pulp in Canada 1,764,912 cords, valued at \$13,104,458, while 1,068,207 cords, valued at \$6,866,669, were exported, making a total production of 2,833,119 cords, valued at \$19,971,127. This represents an increase of 25.5 p.c. in pulpwood production and 28.1 p.c. in total value as compared with 1915. The great increase is due to the demand for pulp and paper caused by the war conditions of the two preceding years. The average value of pulpwood at the mill increased seventy-one cents per cord over that of 1915.

**Estimated Value of all Forest Products.**—Table 31 is an estimate of the total values of the different classes of forest products for the calendar years 1913 to 1916. The figures are rounded to hundreds of thousands of dollars and form as reliable a summary as can be made from the data available, which are partly actual statistics and partly estimates of the Forestry Branch. The total value for 1916 is \$172,830,000, as compared with \$172,880,000 for 1915.

## PRODUCTION.

## 31.—Estimated Values of Forest Products, 1913-1916.

Variety of Timber.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
Lumber, lath and shingles.....	71,000,000	67,500,000	69,750,000	66,075,000
Firewood.....	55,000,000	60,500,000	60,650,000	62,000,000
Pulpwood.....	15,000,000	15,500,000	15,750,000	19,975,000
Fence posts and rails.....	10,000,000	9,500,000	9,000,000	8,000,000
Cross-ties.....	9,000,000	9,000,000	3,500,000	3,750,000
Square timber exported.....	500,000	400,000	480,000	185,000
Cooperage.....	1,900,000	1,900,000	1,400,000	1,250,000
Poles.....	1,800,000	700,000	500,000	575,000
Logs exported.....	900,000	850,000	1,325,000	850,000
Tanning materials.....	20,000	22,000	170,000	140,000
Round mining timbers.....	600,000	500,000	680,000	750,000
Miscellaneous exports.....	400,000	300,000	175,000	280,000
Miscellaneous products.....	11,000,000	10,000,000	9,500,000	9,000,000
<b>Total.....</b>	<b>177,120,000</b>	<b>176,672,000</b>	<b>172,880,000</b>	<b>172,830,000</b>

## 32.—Quantities and Values of the cut of Lumber, Shingles and Lath by Provinces, 1915 and 1916.

Province.	LUMBER.		SHINGLES.		LATH.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1915.	M.F.B.M	\$	M.	\$	M.	\$
Ontario.....	1,035,341	19,663,950	93,497	176,317	309,022	927,577
British Columbia....	669,816	8,414,227	1,894,642	3,231,508	46,345	78,201
Quebec.....	1,078,787	17,784,415	574,797	1,264,553	55,204	147,395
New Brunswick.....	633,518	9,902,202	458,987	917,208	288,951	693,795
Nova Scotia.....	294,475	4,366,165	30,733	52,053	59,921	128,785
Saskatchewan.....	62,864	880,353	404	910	23,611	47,222
Manitoba.....	42,357	549,430	81	149	8,910	14,197
Alberta.....	17,975	244,487	13,740	65,251	—	—
Prince Edward Island	7,543	114,577	17,589	26,903	1,262	3,647
<b>Total.....</b>	<b>3,842,676</b>	<b>61,919,806</b>	<b>3,089,470</b>	<b>5,734,852</b>	<b>793,226</b>	<b>2,040,819</b>
1916.						
Ontario.....	894,050	17,848,675	76,374	189,422	231,829	727,159
British Columbia....	875,937	12,932,711	2,009,798	4,019,197	45,729	96,990
Quebec.....	818,523	13,722,883	414,951	966,836	67,689	190,206
New Brunswick.....	513,655	8,384,397	359,583	724,222	225,366	547,809
Nova Scotia.....	220,718	3,054,309	22,772	39,814	59,205	101,609
Saskatchewan.....	84,275	1,189,351	—	—	25,061	36,768
Manitoba.....	57,711	850,879	—	—	17,314	37,323
Alberta.....	18,350	263,996	327	684	900	1,829
Prince Edward Island	7,331	118,148	13,757	22,758	1,495	4,337
<b>Total.....</b>	<b>3,490,550</b>	<b>58,365,349</b>	<b>2,897,562</b>	<b>5,962,933</b>	<b>665,588</b>	<b>1,743,940</b>

NOTE.—M.F.B.M. signifies 1,000 ft. board measure.

## FORESTRY.

## 33.—Total Consumption and Value of Pulpwood, 1908-16.

Year.	Total Consumption.	Total Value.	Year.	Total Consumption.	Total Value.
	Cords.	\$		Cords.	\$
1908.....	482,777	2,931,653	1913.....	1,109,634	7,243,368
1909.....	622,129	3,464,080	1914.....	1,224,376	8,089,868
1910.....	598,487	3,585,154	1915.....	1,405,836	9,426,217
1911.....	672,288	4,338,024	1916.....	1,764,912	13,104,458
1912.....	866,042	5,215,582			

## 34.—Quantities and Values of Wood used in the manufacture of Pulp, 1914-16.

Province.	Wood used.	Value.	Average Value per cord.	Pulp. produced.	Number of firms reporting.
1914.	Cords.	\$	\$ cts.	Tons.	No.
Quebec.....	636,496	4,148,405	6.52	515,409	23
Ontario.....	447,751	3,172,235	7.08	325,233	15
New Brunswick.....	49,339	296,769	6.01	26,829	4
Nova Scotia.....	10,777	46,015	4.27	10,777	5
British Columbia.....	80,013	426,444	5.33	56,352	2
<b>Total.....</b>	<b>1,224,376</b>	<b>8,089,868</b>	<b>6.61</b>	<b>934,600</b>	<b>49</b>
1915.					
Quebec.....	697,962	4,227,033	6.06	561,793	24
Ontario.....	480,627	3,806,804	7.92	364,226	15
New Brunswick.....	115,842	732,521	6.32	62,093	4
Nova Scotia.....	20,870	99,050	4.75	20,870	5
British Columbia.....	90,535	560,809	6.08	65,823	2
<b>Total.....</b>	<b>1,405,836</b>	<b>9,426,217</b>	<b>6.71</b>	<b>1,074,805</b>	<b>50</b>
1916.					
Quebec.....	924,272	6,840,489	7.40	686,604	23
Ontario.....	637,612	5,016,425	7.87	473,014	15
New Brunswick.....	79,594	591,705	7.43	43,374	4
Nova Scotia.....	14,437	76,040	5.27	14,437	5
British Columbia.....	108,997	579,799	5.32	78,655	2
<b>Total.....</b>	<b>1,764,912</b>	<b>13,104,458</b>	<b>7.42</b>	<b>1,296,084</b>	<b>49</b>



## PRODUCTION.

Diagram No. 1

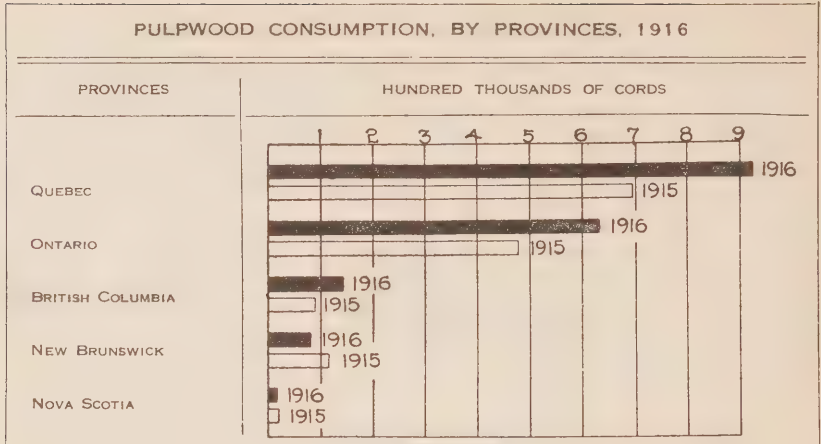


Diagram No. 2

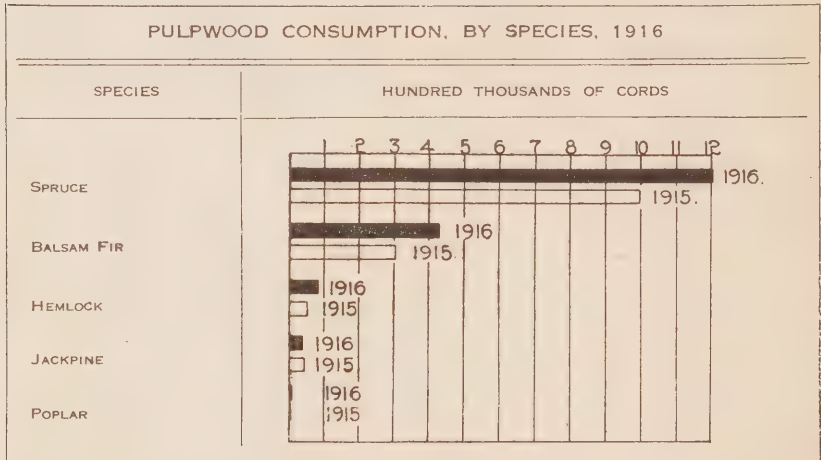
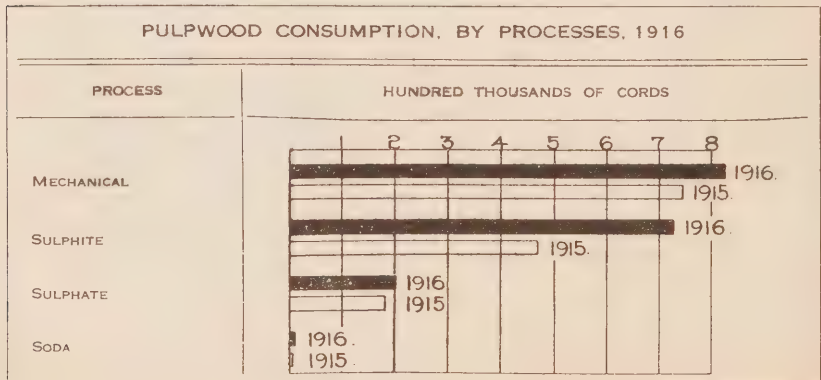


Diagram No. 3



## FORESTRY.

35.—Kinds of Wood used in the manufacture of Pulp by Quantities and Values,  
1914, 1915 and 1916.

Kinds of Wood.	1914.			1915.			1916.		
	Quantity.	Value.	Average Value.	Quantity.	Value.	Average Value.	Quantity.	Value.	Average Value.
	Cords.	\$	\$ cts.	Cords.	\$	\$ cts.	Cords.	\$	\$ cts.
Spruce.....	836,387	5,605,926	6.70	998,156	7,057,572	7.07	1,203,557	9,219,414	7.66
Balsam Fir.....	314,183	2,067,434	6.58	307,219	1,795,372	5.84	433,154	3,167,311	7.31
Hemlock.....	45,246	254,576	5.63	55,265	325,411	5.89	82,307	483,633	5.88
Poplar.....	3,845	26,170	6.81	3,243	22,503	6.94	6,177	41,695	6.75
Jack Pine. ....	24,715	135,762	5.49	41,953	225,359	5.37	39,717	192,405	4.84
<b>Total.....</b>	<b>1,224,376</b>	<b>3,089,868</b>	<b>6.61</b>	<b>1,405,836</b>	<b>9,426,217</b>	<b>6.71</b>	<b>1,764,912</b>	<b>13,104,458</b>	<b>7.42</b>

## 36.—Quantities of Wood used and of Pulp manufactured, 1914-1916.

## WOOD USED.

Process of Manufacture.	Quebec.	Ontario.	New Brunswick.	Nova Scotia.	British Columbia	Total.
	Cords.	Cords.	Cords.	Cords.	Cords.	Cords.
Mechanical.....1914	394,321	202,715	4,319	10,777	32,792	644,924
.....1915	425,626	247,825	8,344	20,870	41,111	743,776
.....1916	448,938	308,416	7,154	14,437	48,313	827,258
Sulphite.....1914	113,006	231,754	45,020	—	47,321	437,101
.....1915	101,225	212,805	107,498	—	49,421	470,949
.....1916	285,761	309,060	72,440	—	60,684	727,945
Sulphate.....1914	125,384	13,282	—	—	—	138,666
.....1915	164,811	20,000	—	—	—	184,811
.....1916	181,818	20,136	—	—	—	201,954
Soda.....1914	3,785	—	—	—	—	3,785
.....1915	6,300	—	—	—	—	6,300
.....1916	7,755	—	—	—	—	7,755
All processes ....1914	636,496	447,751	49,339	10,777	80,111	1,224,476
.....1915	697,962	480,627	115,842	20,870	90,535	1,405,836
.....1916	924,272	637,612	79,594	14,437	108,997	1,764,912

## P R O D U C T I O N .

## 36.—Quantities of Wood used and of Pulp manufactured, 1914-1916.—concluded.

## PULP MANUFACTURED.

Process of Manufacture.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Mechanical. . . . . 1914	394,321	202,715	4,319	10,777	32,792	644,924
1915	425,626	247,825	8,344	20,870	41,111	743,776
1916	448,938	308,416	7,154	14,437	48,313	827,258
Sulphite. . . . . 1914	56,503	115,877	21,510	—	23,660	217,550
1915	50,612	106,401	53,749	—	24,712	235,474
1916	142,880	154,530	36,220	—	30,342	363,972
Sulphate. . . . . 1914	62,692	6,641	1,000	—	—	70,333
1915	82,405	10,000	—	—	—	92,405
1916	90,909	10,068	—	—	—	100,977
Soda. . . . . 1914	1,893	—	—	—	—	1,893
1915	3,150	—	—	—	—	3,150
1916	3,877	—	—	—	—	3,877
All processes. . . . . 1914	515,409	325,233	26,829	10,777	56,452	934,700
1915	561,793	364,226	62,093	20,870	65,823	1,074,805
1916	686,604	473,014	43,374	14,437	78,655	1,296,084

## 37.—Quantities and Values of Cross-ties and Poles purchased by Railway and Electric Companies, 1915 and 1916.

Purchased by	1915.			1916.		
	Quantity.	Value.	Average Value.	Quantity.	Value.	Average Value.
	No.	\$	\$ cts.	No.	\$	\$ cts.
Steam Railways:						
Cross-ties. . . . .	7,399,753	3,229,000	0.44	7,572,878	3,189,834	0.42
Telephone and telegraph poles. . . . .	109,850	165,639	1.51	136,065	221,552	1.63
Electric Railways:						
Cross-ties. . . . .	192,777	100,029	0.52	266,637	117,485	0.44
Poles <sup>1</sup> . . . . .	69,398	285,209	4.11	46,252	205,602	4.45
Total cross-ties. . . . .	7,592,530	3,329,029	0.44	7,839,515	3,307,319	0.42
Total poles. . . . .	179,248	450,848	2.52	182,317	427,154	2.34

<sup>1</sup>Includes poles purchased by Power and Light Companies.

## FORESTRY.

38.—Exports from Canada of Wood Pulp, by Countries, in the fiscal years 1911-1916.

Kinds.	1911.			1912.		
	Quantity.	Value.	Average value per cwt.	Quantity.	Value.	Average value per cwt.
Chemical pulp—	cwt.	\$	\$ cts.	cwt.	\$	\$ cts.
United Kingdom.....	4,113	8,219	2.00	756	1,920	2.54
United States.....	716,427	1,298,162	1.81	834,483	1,585,615	1.90
Other countries.....	888	1,720	1.09	—	—	—
<b>Total.....</b>	<b>721,428</b>	<b>1,308,101</b>	<b>1.81</b>	<b>835,239</b>	<b>1,587,535</b>	<b>1.90</b>
Mechanical pulp—						
United Kingdom.....	958,765	488,709	0.51	1,295,427	672,441	0.52
United States.....	4,673,922	3,796,427	0.81	3,728,141	2,834,329	0.76
France.....	232,613	120,417	0.52	—	—	—
Other countries.....	1,927	1,878	0.97	—	—	—
<b>Total.....</b>	<b>5,867,227</b>	<b>4,407,431</b>	<b>0.75</b>	<b>5,023,568</b>	<b>3,506,770</b>	<b>0.70</b>
Kinds.	1913.			1914.		
	Quantity.	Value.	Average value per cwt.	Quantity.	Value.	Average value per cwt.
Chemical pulp—						
United Kingdom.....	322	643	2.00	3,881	5,412	1.39
United States.....	1,055,380	1,995,817	1.89	1,373,887	2,660,013	1.94
Japan.....	54,027	99,148	1.83	135,221	253,258	1.87
Other countries.....	2,728	5,234	1.92	2,644	4,400	1.66
<b>Total.....</b>	<b>1,112,457</b>	<b>2,100,842</b>	<b>1.89</b>	<b>1,515,633</b>	<b>2,923,083</b>	<b>1.93</b>
Mechanical pulp—						
United Kingdom.....	1,434,649	827,490	0.58	1,862,589	1,162,470	0.62
United States.....	3,313,950	2,580,462	0.77	2,915,601	2,253,621	0.77
France.....	—	—	—	37,986	25,650	0.67
Other countries.....	1,120	750	0.67	—	—	—
<b>Total.....</b>	<b>4,749,719</b>	<b>3,408,702</b>	<b>0.75</b>	<b>4,816,170</b>	<b>3,441,741</b>	<b>0.71</b>
Kinds.	1915.			1916.		
	Quantity.	Value.	Average value per cwt.	Quantity.	Value.	Average value per cwt.
Chemical pulp—						
United Kingdom.....	450	800	1.78	19,023	36,777	1.93
United States.....	2,289,661	4,550,196	1.99	3,288,816	6,405,616	1.95
Japan.....	133,071	252,707	1.90	182,510	349,639	1.92
Other countries.....	1,146	2,919	2.55	4,467	8,979	2.01
<b>Total.....</b>	<b>2,424,328</b>	<b>4,806,622</b>	<b>1.98</b>	<b>3,494,816</b>	<b>6,801,011</b>	<b>1.95</b>
Mechanical pulp—						
United Kingdom.....	2,195,036	1,495,521	0.68	362,531	299,264	0.83
United States.....	3,855,266	2,893,618	0.75	3,875,972	2,967,153	0.76
France.....	113,400	70,400	0.62	410,206	308,750	0.75
Other countries.....	—	—	—	500	370	0.74
<b>Total.....</b>	<b>6,163,702</b>	<b>4,459,539</b>	<b>0.72</b>	<b>4,649,203</b>	<b>3,575,537</b>	<b>0.77</b>



## PRODUCTION.

## 39.—Quantity and Value of Wood, Blocks and Other, for Pulp, exported to the United States, 1904-1916.

Fiscal Year.	Cords.	\$	Fiscal Year.	Cords.	\$
1904.....	479,238	1,788,049	1911.....	936,791	6,092,715
1905.....	593,624	2,600,814	1912.....	879,775	5,697,901
1906.....	614,286	2,649,106	1913.....	1,003,594	6,806,445
1907 (9 mos.).....	452,846	1,998,805	1914.....	1,089,384	7,388,770
1908.....	901,861	4,655,371	1915.....	1,010,914	6,817,311
1909.....	794,986	4,356,391	1916.....	879,934	5,743,847
1910.....	965,271	6,076,628			

NOTE.—From 1902 to 1916 the exports from Canada of Wood, Blocks and Other, for Pulp went only to the United States; quantities were not given prior to 1904.

## FISHERIES.

**Capital Invested.**—The estimated total capital invested in the fisheries amounted in 1915-16 to \$25,855,575, as compared with \$24,733,162 in 1914-15. Of the total for 1915-16 the sum of \$23,260,456 was invested in connection with the sea fisheries and \$2,595,119 in connection with the inland fisheries. The value of the vessels and boats is represented by \$8,940,458 in 1915-16 as against \$8,348,572 in 1914-15, and the value of the fishing gear, canneries, fish-houses and other fixtures by \$16,915,107 in 1915-16 as against \$16,384,590 in 1914-15. Table 40 shows the distribution of capital amongst the various descriptions of vessels, boats, nets, traps, etc., used in both sea and inland fisheries for the fiscal year 1915-16.<sup>1</sup>

**Number of Fishermen.**—There were 102,182 persons employed in the fishing industry during the year 1915-16, as compared with 94,513 in 1914-15, the sea fisheries engaging 86,766 persons and the inland fisheries 15,416. Of the total in 1915-16, 9,541 were employed on vessels, tugs and smacks, 65,321 on boats, and 27,320 on shore in canneries, freezers, smoke-houses, etc.<sup>1</sup>

**Fishing Bounties.**—Under an Act of 1882 (45 Vict., c. 18), passed for development of the sea fisheries and encouragement of the building of fishing vessels, provision was made for the distribution in bounties of \$150,000 annually among the owners of fishing vessels and fishermen engaged in fishing from boats in the deep sea fisheries of Canada. An Act of 1891 (54-55 Vict., c. 42) increased the amount to \$160,000. By Order-in-Council of January 19, 1916, made under the provisions of the Revised Statutes of 1906, c. 46, the distribution of the appropriation of \$160,000 for the year 1915-16 was made on the following basis: \$1 per registered ton to owners of vessels, \$5.90 to each vessel fisherman, \$3.45 to each boat fisherman and \$1 per boat to owners of fishing boats. The number of vessels which received bounties in 1915-16 was 941 with an aggregate tonnage of 23,638, a decrease of 14 vessels and 173 tons, as compared with 1914-15. The number of boats on which bounties were paid was 13,926, and the number of boat fishermen who received bounties was 24,670, an increase of 665 boats and of 1,842 men as compared with 1914-15. The total number of fishermen in vessels and boats to whom bounties were paid in 1915-16 was 30,777, a net increase of 1,827 as compared with the previous year. The number

<sup>1</sup> For similar statistics of previous years, see Canada Year Book of 1911, p. 390. Also for a description of the extent of Canadian fisheries and the methods of capture, see edition of 1914, page 230.

## FISHERIES.

of claims filed in 1915-16 was 14,877, an increase of 596 over 1914-15, and the number paid was 14,857, or 641 more than in the previous year. The total fishing bounties paid since 1882 amount to \$5,377,186.

Table 41 shows by provinces the number of fishermen who received bounties and the amount of the bounties paid to them during each of the fiscal years 1912-1915.

40.—Number and Value of Fishing Vessels, Boats, Nets, Traps, etc., used in the Sea and Inland Fisheries of Canada, 1915-1916.

Description.	Sea Fisheries.		Inland Fisheries.		Total	
	No.	\$	No.	\$	No.	\$
Steam fishing vessels.....	57	826,693	142	673,100	199	1,499,793
Sailing and gaso- line vessels.....	1,294	2,812,000	—	—	1,294	2,812,000
Boats, sail and row	23,551	1,052,754	3,888	134,007	27,439	1,186,761
“ gasoline.....	10,262	2,864,068	835	295,125	11,097	3,159,193
Carrying smacks...	491	282,711	—	—	491	282,711
Gill nets, seines, trap and smelt nets, etc.....	157,824	2,587,000	—	957,087	—	3,544,087
Weirs.....	794	534,890	184	67,200	978	602,090
Trawls.....	21,101	225,833	—	—	21,101	225,833
Spears.....	—	—	419	1,087	419	1,087
Skates of gear.....	1,950	28,500	—	—	1,950	28,500
Hand lines.....	67,076	54,368	109,525	35,892	176,601	90,260
Lobster traps...	1,371,774	1,355,851	—	—	1,371,774	1,355,851
“ canneries...	623	631,035	—	—	623	631,035
Salmon “	86	3,071,698	—	—	86	3,071,698
Clam “	19	28,200	—	—	19	28,200
Sardine “	5	349,000	—	—	5	349,000
Freezers and ice- houses.....	796	2,558,090	866	289,978	1,662	2,848,068
Smoke and fish- houses.....	8,812	1,527,162	197	14,740	9,009	1,541,902
Fishing piers and wharves.....	2,643	2,207,538	230	66,563	2,873	2,274,101
Whaling stations...	4	180,855	—	—	4	180,855
Oil factories.....	1	40,000	—	—	1	40,000
Fishing huts and cottages, etc....	—	—	55	60,000	55	60,000
Scows, pile drivers, etc.....	576	35,460	—	—	576	35,460
Eel traps.....	—	—	170	340	170	340
Crab traps.....	75	750	—	—	75	750
Salmon traps.....	2	6,000	—	—	2	6,000
<b>Total, 1915-16...</b>	—	<b>23,260,456</b>	—	<b>2,595,119</b>	—	<b>25,855,575</b>
<b>Total, 1914-15...</b>	—	<b>22,331,072</b>	—	<b>2,402,090</b>	—	<b>24,733,162</b>
Number of men em- ployed on vessels	8,001	—	757	—	8,758	—
Number of men em- ployed on boats...	52,452	—	12,869	—	65,321	—
Number of men em- ployed on carry- ing smacks.....	783	—	—	—	783	—
Number of persons employed in fish- houses, freezers, canneries, etc....	25,530	—	1,790	—	27,320	—
<b>Total</b>	<b>86,766</b>	<b>—</b>	<b>15,416</b>	<b>—</b>	<b>102,182</b>	<b>—</b>

## PRODUCTION.

## 41.—Government Bounties to Fishermen in the fiscal years 1912 to 1915.

Province.	Number of men who received bounties.				Value of bounties paid.			
	1912.	1913.	1914.	1915.	1912.	1913.	1914.	1915.
	No.	No.	No.	No.	\$	\$	\$	\$
Prince Edward Is'd	2,262	2,328	2,349	2,263	11,119	11,082	10,340	9,514
Nova Scotia.....	14,307	14,300	15,364	15,560	97,904	93,456	94,991	90,611
New Brunswick...	2,083	2,225	2,528	2,705	15,110	16,385	17,536	17,610
Quebec.....	7,906	8,383	8,709	10,249	35,863	37,738	36,717	41,006
<b>Total.....</b>	<b>26,558</b>	<b>27,236</b>	<b>28,950</b>	<b>30,777</b>	<b>159,996</b>	<b>158,661</b>	<b>159,584</b>	<b>158,741</b>

**Inland Fish Markets.**—Other government assistance to the fishing industry takes the form of encouraging the development of markets for fresh fish in the interior of the country by payment of one-third of the ordinary express charges on shipments of fresh fish from the Atlantic coast to points as far west as the eastern boundary of Manitoba and from the Pacific coast as far east as that boundary. Cold storage cars by fast freight are placed at the disposal of shippers from the Atlantic seaboard, and aid is rendered in the building of small cold storage establishments for the storing of bait. Fish-breeding is carried on by the Dominion Government upon an extensive scale, the expenditure for this service in 1915-16 amounting to \$275,079. The hatcheries in operation number altogether 59, including seven subsidiary hatcheries; there are also retaining ponds for Atlantic salmon. The hatcheries are situated in Prince Edward Island (3), Nova Scotia (13), New Brunswick (11), Quebec (7), Ontario (8), Manitoba (4), Saskatchewan (1), Alberta (1) and British Columbia (11). In addition, there is one in British Columbia which is operated by the British Columbia Packers' Association.

**Value of Fisheries.**—As shown in Table 42, the total marketed value of all kinds of fish, fish products and marine animals, taken by Canadian fishermen in both the sea and inland fisheries during the year ended March 31, 1916, amounted to \$35,860,708, as compared with \$31,264,631 in 1914-15. To the total amount in 1915-16 the sea fisheries contributed \$31,241,502 and the inland fisheries \$4,619,206.<sup>1</sup>

<sup>1</sup>For further details respecting the Canadian fishing industry, see Annual Reports of the Department of Marine and Fisheries, from which the statistics in the Year Book have been compiled.

## FISHERIES.

## 12. -Quantities and Values of all Fish marketed in Canada in 1914-15 and 1915-16.

Kinds of Fish.	1914-15.		1915-16.	
	Quantity.	Value.	Quantity.	Value.
<b>Canada.</b>	-	\$ 31,264,631	-	\$ 35,860,708
Alewives, fresh.....cwt.	29,571	42,316	28,275	51,438
Alewives, salted.....bbl.	20,451	64,590	19,585	68,688
Bass.....cwt.	4,066	47,435	3,033	35,642
Beluga skins.....NO.	-	-	750	3,750
Catfish.....cwt.	6,823	52,147	8,061	60,923
Clams and Quahaugs, canned...cases	18,303	107,062	16,613	89,616
Clams, fresh.....bbl.	69,669	175,814	50,265	133,303
Cod, fresh.....cwt.	134,362	568,457	126,814	530,736
Cod, green, salted....."	181,925	599,811	155,527	496,036
Cod, dried....."	439,440	2,710,165	571,363	3,460,209
Dulse, etc....."	8,608	59,273	4,996	29,488
Eels....."	12,283	75,878	14,514	104,237
Fish glue material.....ton	31	310	-	-
Fish guano....."	2,966	54,611	1,134	49,136
Fish oil.....gal.	391,650	121,521	565,924	200,756
Flounders.....cwt.	7,353	28,220	6,276	22,886
Haddock, canned.....cases	-	-	6,770	27,080
Haddock, fresh.....cwt.	138,926	279,572	153,755	326,367
Haddock, dried....."	88,784	403,018	89,563	434,824
Haddock, smoked....."	72,430	547,314	49,108	351,736
Haddock, green-salted....."	7,468	14,936	20,285	60,855
Haddock, smoked fillets....."	-	-	3,895	31,160
Hake, dried....."	84,266	304,235	123,456	505,527
Hake, fresh....."	8,965	9,350	6,607	7,482
Halibut, fresh....."	239,920	1,793,283	226,151	2,261,776
Herring, canned.....cases	3,350	16,750	21,501	113,240
Herring, fresh.....cwt.	252,778	904,122	286,582	1,027,197
Herring, smoked....."	87,757	316,292	124,223	388,732
Herring, pickled.....bbl.	129,187	555,178	112,065	652,982
Herring, dry-salted.....cwt.	236,461	359,014	183,704	312,322
Herring, used as bait.....bbl.	291,584	505,374	197,054	337,540
Herring, used as fertilizer....."	156,288	78,527	151,149	74,874
Lobsters, shipped in shell.....cwt.	86,824	1,290,936	119,599	1,895,524
Lobsters, canned.....cases	160,903	3,048,993	162,966	2,610,631
Mackerel, fresh.....cwt.	70,815	550,748	82,367	615,950
Mackerel, salted.....bbl.	24,277	276,098	32,729	373,331
Maskinonge.....cwt.	105	1,411	303	3,451
Oulachans....."	13,642	71,036	13,729	76,982
Oysters.....bbl.	26,545	177,979	21,386	147,628
Perch.....cwt.	23,062	115,220	19,218	98,119
Pike....."	97,724	469,919	69,229	347,355
Pickrel....."	97,555	657,783	55,722	412,953
Pickrel, blue....."	-	-	48,823	488,230
Pollock, fresh, dried and salted.."	66,585	214,195	55,625	193,788
Salmon, fresh....."	251,211	1,958,385	388,567	2,939,900
Salmon, canned.....cases	1,134,973	5,675,518	1,133,762	7,936,715
Salmon, dry salted, pickled and mild-cured.....cwt.	147,587	842,955	44,835	319,056
Salmon, smoked....."	7,952	83,528	4,431	66,710
Sardines, fresh.....bbl.	278,305	834,615	312,722	627,296
Sardines, canned.....cases	103,000	515,000	120,360	601,800
Sealskins, fur.....NO.	352	10,560	439	13,170
Sealskins, hair....."	6,345	6,557	11,346	16,112
Shad, salted.....bbl.	275	3,675	173	2,850



## PRODUCTION.

42.—Quantities and Values of all Fish marketed in Canada in 1914-15 and 1915-16  
—concluded.

Kinds of Fish.	1914-15.		1915-16.	
	Quantity.	Value.	Quantity.	Value.
Canada—con.		\$		\$
Shad, fresh..... cwt.	4,684	36,509	8,879	64,289
Smelts..... "	93,771	837,682	67,607	632,733
Soles..... "	4,824	36,648	3,773	27,848
Squid..... bbl.	2,719	9,954	5,179	22,429
Sturgeon..... cwt.	4,871	69,847	4,363	62,687
Sturgeon caviare..... "	93	9,417	82	8,330
Sword-fish..... "	4,982	24,780	18,527	106,090
Trout..... "	67,890	623,504	115,999	870,209
Tom cod..... "	20,017	40,007	18,537	37,007
Tongues and sounds..... "	1,045	7,565	1,046	5,802
Tullibee..... "	50,946	156,529	55,787	165,569
Whale oil..... gal.	926,900	283,154	710,188	144,209
Whitefish..... cwt.	159,894	975,685	153,529	1,048,641
Fish, all other, etc.....	—	553,664	—	626,776

43.—Quantities and Values of the catch of the Inland Fisheries of Canada, 1914-15  
and 1915-16.

Kinds of Fish.	1914-15.		1915-16.	
	Quantity.	Value.	Quantity.	Value.
Salmon, fresh..... cwt.	3,110	36,070	2,346	27,679
Herring, fresh..... "	80,636	400,681	105,852	523,300
Herring, smoked..... "	1,202	12,020	758	7,580
Herring, pickled..... bbl.	3,089	30,890	3,334	33,340
Catfish..... cwt.	6,823	52,147	8,061	60,923
Whitefish..... "	159,894	975,685	153,529	1,048,641
Trout..... "	63,340	576,758	111,361	811,464
Pickarel..... "	97,555	657,783	104,545	901,183
Pike..... "	97,724	469,919	69,229	347,355
Perch..... "	22,718	113,156	18,731	94,223
Eels..... "	8,520	51,258	10,560	77,746
Sturgeon..... "	3,634	46,111	3,511	45,947
Tullibee..... "	50,946	156,529	55,787	165,569
Bass..... "	715	7,521	256	2,756
Maskinonge..... "	105	1,411	303	3,451
Alewives, fresh..... "	4,374	8,748	2,842	5,684
Shad, fresh..... "	922	4,610	1,571	9,125
Shad, salted..... bbl.	45	225	35	525
Mixed fish..... cwt.	116,105	375,738	113,371	385,235
Sturgeon caviare..... "	91	9,017	81	8,130
Mullets..... "	9,158	9,158	6,673	6,673
Gold eyes..... "	7,327	14,643	4,055	8,473
Carp..... "	27,897	55,794	20,181	40,362
Fish, all other..... "	—	502	—	3,842
Total.....	—	4,066,374	—	4,619,206

NOTE.—The figures in Table 43 are also included in Table 42.

## FISHERIES.

## 44.—Total Value of Fisheries by Provinces in the fiscal years 1912-1916.

Province.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Prince Edward Island. ....	1,196,396	1,379,905	1,280,447	1,261,666	933,682
Nova Scotia. ....	9,367,550	7,384,055	8,297,626	7,730,191	9,166,851
New Brunswick. ....	4,886,157	4,264,054	4,308,707	4,940,083	4,737,145
Quebec. ....	1,868,136	1,988,241	1,850,427	1,924,430	2,076,851
Ontario. ....	2,205,436	2,842,878	2,674,685	2,755,291	3,341,182
Manitoba. ....	1,113,486	800,149	606,272	849,422	742,925
Saskatchewan. ....	139,436	111,839	148,602	132,017	165,888
Alberta. ....	102,325	51,616	81,319	86,720	94,134
British Columbia. ....	13,677,125	14,455,488	13,891,398	11,515,086	14,538,320
Yukon. ....	111,825	111,239	68,265	69,725	63,730
<b>Total for Canada. . . .</b>	<b>34,667,872</b>	<b>33,389,464</b>	<b>33,207,748</b>	<b>31,264,631</b>	<b>35,860,708</b>

## 45.—Total Value of the Fisheries of Canada in the fiscal years 1870-1916.

Years.	Value.	Years.	Value.	Years.	Value.	Years.	Value.
	\$		\$		\$		\$
1870. . . .	6,577,391	1882. . . .	16,824,092	1894. . . .	20,719,573	1906. . . .	26,279,485
1871. . . .	7,573,199	1883. . . .	16,958,192	1895. . . .	20,199,338	1907-08	25,499,349
1872. . . .	9,570,116	1884. . . .	17,766,404	1896. . . .	20,407,425	1908-09	25,451,085
1873. . . .	10,754,997	1885. . . .	17,722,973	1897. . . .	22,783,546	1909-10	29,629,167
1874. . . .	11,681,886	1886. . . .	18,679,288	1898. . . .	19,667,121	1910-11	29,965,433
1875. . . .	10,350,385	1887. . . .	18,386,103	1899. . . .	21,891,706	1911-12	34,667,872
1876. . . .	11,117,000	1888. . . .	17,418,510	1900. . . .	21,557,639	1912-13	33,389,464
1877. . . .	12,005,934	1889. . . .	17,655,256	1901. . . .	25,737,153	1913-14	33,207,748
1878. . . .	13,215,678	1890. . . .	17,714,902	1902. . . .	21,959,433	1914-15	31,264,631
1879. . . .	13,529,254	1891. . . .	18,977,878	1903. . . .	23,101,878	1915-16	35,860,708
1880. . . .	14,499,979	1892. . . .	18,941,171	1904. . . .	23,516,439		
1881. . . .	15,817,162	1893. . . .	20,686,661	1905. . . .	29,479,562		

## PRODUCTION.

## 46.—Values of Exports and Imports of Fish, 1902-1916.

Fiscal Year.	Exports of fisheries, domestic.	Imports of fish for home consumption.		Fiscal Year.	Exports of fisheries, domestic.	Imports of fish for home consumption.	
		Dutiable.	Free.			Dutiable.	Free.
	\$	\$	\$		\$	\$	\$
1902.....	14,143,294	591,064	451,835	1910.....	15,663,162	909,036	715,703
1903.....	11,800,184	629,545	633,680	1911.....	15,675,544	1,123,581	669,033
1904.....	10,759,029	704,577	685,936	1912.....	16,704,678	1,203,045	984,458
1905.....	11,114,318	713,264	630,660	1913.....	16,336,721	1,519,571	910,923
1906.....	16,025,840	765,410	1,152,253	1914.....	20,623,560	1,469,305	635,231
1907 <sup>1</sup> .....	10,362,142	699,218	862,880	1915.....	19,687,068	1,080,225	568,880
1908.....	13,867,367	795,612	1,026,996	1916.....	22,377,977	804,338	537,342
1909.....	13,319,664	746,315	814,770				

<sup>1</sup>Nine months.

## 47.—Exports of the Fisheries, the Produce of Canada, by principal countries, in the fiscal years 1915-1916.

Exports to—	1915.	1916.	Exports to—	1915.	1916.
	\$	\$		\$	\$
United Kingdom..	5,448,902	6,731,794	United States....	8,521,901	8,867,139
Australia.....	395,023	661,718	Brazil.....	487,494	945,568
British West Indies	939,380	1,010,966	Cuba.....	504,691	623,947
British Guiana....	68,105	201,365	Denmark.....	55,085	49,293
New Zealand.....	172,909	182,917	Dutch Guiana...	39,751	42,587
Newfoundland....	64,817	59,666	France.....	689,462	1,216,602
Hong Kong.....	198,216	69,859	French W. Indies.	300	44,731
Bermuda.....	26,411	36,394	Italy.....	346,595	354,815
Straits Settlements	144,991	112,518	Japan.....	255,867	169,450
Fiji Islands.....	51,812	57,143	Germany.....	196,819	—
Other British Possessions.....	22,278	28,432	Porto Rico.....	446,966	631,540
			Portugal.....	26,242	43,207
			Panama.....	79,614	121,025
			Belgium.....	98,415	—
			Norway.....	87,624	5,511
			Sweden.....	69,078	21,534
			China.....	117,057	20,881
			Other foreign countries.....	137,263	67,375
<b>Total British Empire.....</b>	<b>7,532,844</b>	<b>9,152,772</b>	<b>Total foreign countries...</b>	<b>12,154,224</b>	<b>13,225,205</b>
			<b>Grand total of exports.....</b>	<b>19,687,068</b>	<b>22,377,977</b>

## MINERALS.

**Mineral Statistics.**—The results of the census of mineral production, taken in 1911, were published in the Year Book of 1913 (pages 196–199). In the present edition the Canadian statistics given are limited to those of the Dominion Government and of the Departments of Mines of the Provincial Governments of Nova Scotia, New Brunswick, Quebec, Ontario, Alberta and British Columbia. To the statistics of production in this section have been added statements of the imports of Portland cement (Table 66), of the imports of anthracite and bituminous coal (Table 67) and of the exports of coal (Table 68).

**Dominion Department of Mines.**—According to the annual preliminary report of the Division of Mineral Resources and Statistics of the Dominion Department of Mines, the total value of the metal and mineral production of 1916 was \$177,357,454, as compared with \$137,109,171, the finally revised figures of 1915. This is an increase of \$40,248,283, or 29.3 p.c. The previous maximum value of the mineral production was \$145,634,812 in 1913.

The war has had a pronounced effect not only in stimulating the production of those metals such as nickel, copper and zinc, iron and steel, molybdenum, etc., which are used extensively for war purposes, but also in increasing the production of other products such as chromite and magnesite which can only now be obtained with difficulty, if at all, from sources previously available. The general industrial activity in metallurgical operations and in the manufacture generally of munitions of all kinds, including the freight movements required, have in turn increased the demand for fuel, which has been met in Western Canada at least by large increases in coal production. Increased production in quantity has in most instances been accompanied by large increases in prices, thus further enhancing the total value of the production. Considerable progress has been made during the year in establishing and increasing smelting and refining capacities of which the installation of electrolytic zinc and copper refineries at Trail, and the beginning of the construction of a nickel refinery at Port Colborne, Ont., are conspicuous examples. In addition, mention should be made of the production of metallic magnesium at Shawinigan Falls, of ferro-molybdenum at Orillia and Belleville, of metallic arsenic at Thorold, and of stellite, the cobalt alloy for high speed tool metal, at Deloro, and of the increased capacity for the production of steel, particularly the installation of electric furnaces. The mining output has been restricted and the efficiency of its operation considerably reduced by the withdrawal for war service of a large proportion of the more highly experienced labour and engineering supervision. Higher costs have tended to offset the advantages to be derived from higher prices of output and in the case of gold mining have been a distinct burden.

**Increase or Decrease in Principal Products, 1916.**—From Table 48 it will be noted that there has been an increased production of nearly all metals, with the exception of lead and silver. The total value of the metallic production in 1916 was \$107,040,035, as compared with \$75,814,841 in 1915, an increase of \$31,225,194, or 41.2 p.c. The total value of the non-metallic production, including clay and quarry products, in



## PRODUCTION.

1916, was \$70,317,419, as compared with \$61,294,330 in 1915, an increase of \$9,023,089, or 14.7 p.c. The aggregate production of structural materials showed a slight decrease, the value in 1916 being \$17,301,726, as against \$17,920,759 in 1915. The total of all other non-metallies increased from \$43,373,571 to \$53,015,693 in 1916. Of gold the production in 1916 is estimated at 926,963 fine oz., valued at \$19,162,025, as compared with 918,056 fine oz., valued at \$18,977,901 in 1915, an increase of \$184,124, or about 1 p.c. It is the largest production since 1902. The highest production recorded was \$27,908,153 in 1900, and the lowest since then was \$8,382,780 in 1907. The production of silver in 1916 was 25,669,172 fine oz., valued at \$16,854,635, as against 26,625,960 fine oz., valued at \$13,228,842 in 1915, a decrease of 3.6 p.c. in quantity, but an increase of 27 p.c. in value. Copper has shown large increases during the past three years. In 1916 the total copper contents of smelter products credited to Canadian ores and estimated recoveries from ores exported amounted to 119,770,814 lb., which would be worth \$32,580,057 at the average monthly price of refined copper in New York, 27.202 cents per lb. The production in 1915 was 100,785,150 lb., and at 17.275 cents per lb., the average price for the year, would be worth \$17,410,635. There was thus an increase in 1916 of 18,985,664 lb., or 18.8 p.c., in quantity and \$15,169,422, or 87.1 p.c., in total value. Nickel shows a production in 1916 of 82,958,564 lb. of the value of \$29,035,497, as against 68,308,657 lb. of the value of \$20,492,597 in 1915; the increase in quantity is at the rate of 21.45 and in value 41.69 p.c. The production of lead in 1916 was 41,593,680 lb., as compared with 46,316,450 lb. in 1915, a decrease of 10.20 p.c.; in value the respective figures are \$3,540,870 for 1916 and \$2,593,721 for 1915, an increase of 36.52 p.c. The total production of marketable coal in 1916 was 14,461,678 short tons of the value of \$38,857,557, as against 13,267,023 tons, value \$32,111,182, in 1915, an increase of 1,194,655 tons, or 9 p.c., in quantity and of \$6,746,375, or 21 p.c., in value. The production of structural materials and clay products, which showed a large falling off in both 1914 and 1915, showed a further decrease in 1916. The total value of the production in 1916 was \$17,301,726, as against \$17,920,759 in 1915 and \$26,009,227 in 1914.

**World's Production of Gold and Silver.**—Table 65, which is taken from the Annual Report for 1916 of the Director of the United States Mint, gives by countries the quantity and value of the world's production of gold and silver for the calendar years 1914 and 1915. For 1915, the total production of gold amounted to 22,760,788 fine oz. of the value of \$470,607,144, as compared with 21,240,416 oz. of the value of \$439,078,263 in 1914. By countries the Transvaal leads with a total gold production in 1915 of 9,096,106 oz., the United States being second with 4,887,604 oz., followed by Australia, third with 1,918,520 oz., Russia, fourth with 1,382,867 oz., Canada fifth with 918,056 oz. and Rhodesia, sixth with 915,029 oz. The gold production of the British Empire in 1915 (excluding the British East Indies, the production of which is included with the Dutch East Indies) was 14,347,582 fine oz., constituting 63 p.c. of the world's total of 22,760,788 oz. The world's production of silver in 1915 was 177,978,435 fine oz. of the value of

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\$92,356,568, as compared with 160,669,129 oz. of the value of \$88,869,307 in 1914. By countries the lead in silver production is taken by the United States with 74,961,075 oz in 1915, followed by Mexico with 39,570,151 oz and Canada with 26,625,960 oz. The silver production of the British Empire in 1915 was 32,486,309 oz., or 18 p.c. of the total of 177,978,435 oz.

## 48.—Quantities and Values of Minerals produced in Canada, 1915 and 1916.

Description.	Quantities.		Values.	
	1915.	1916. <sup>1</sup>	1915.	1916. <sup>1</sup>
<b>Metallic.</b>			\$	\$
Copper..... lb.	100,785,150	119,770,814	17,410,635	32,580,057
Gold..... oz.	918,056	926,963	18,977,901	19,162,025
Pig iron..... ton	158,595	115,691	1,715,874	1,328,595
Lead..... lb.	46,316,450	41,593,680	2,593,721	3,540,870
Nickel..... "	68,308,657	82,958,564	20,492,597	29,035,497
Silver..... oz.	26,625,960	25,669,172	13,228,842	16,854,635
Other metallic products. ...	—	—	1,395,271	4,538,356
<b>Total Metallic.....</b>	—	—	<b>75,814,841</b>	<b>107,040,035</b>
<b>Non-Metallic.</b>				
Asbestos and asbestic... ton	136,842	154,516	3,574,985	5,160,479
Coal..... "	13,267,023	14,428,278	32,111,182	38,797,437
Gypsum..... "	474,815	341,618	854,929	730,831
Natural gas..... M.cu. ft.	20,124,162	25,238,568	3,706,035	3,924,632
Petroleum..... brl.	215,464	198,123	300,572	392,284
Pyrites..... ton	286,038	309,411	985,190	1,084,019
Salt..... "	119,900	124,033	600,226	668,627
Cement..... brl.	5,681,032	5,359,050	6,977,024	6,529,861
Clay products.....	—	—	3,914,488	4,196,933
Lime..... bush.	5,047,244	5,482,876	1,015,702	1,089,505
Sand and gravel..... ton	6,445,717	—	1,624,767	1,498,009
Stone:—				
Granite.....	—	—	1,525,553	1,277,019
Limestone.....	—	—	2,312,081	2,326,519
Marble and sandstone.....	—	—	407,363	264,521
Miscellaneous non-metallic...	—	—	1,384,233	2,376,743
<b>Total non-metallic.....</b>	—	—	<b>61,294,330</b>	<b>70,317,419</b>
<b>Total metallic.....</b>	—	—	<b>75,814,841</b>	<b>107,040,035</b>
<b>Grand Total.....</b>	—	—	<b>137,109,171</b>	<b>177,357,454</b>

NOTE.—In Tables 48 to 61 the ton is the short ton of 2,000 lb.

<sup>1</sup>Subject to revision.

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## 49.—Increase or Decrease in Principal Mineral Products, 1916.

Principal Products.	Increase (+) or Decrease (—) in Quantity.		Increase (+) or Decrease (—) in Value.	
		p.c.	\$	p.c.
Copper..... lb.	+ 18,985 664	18.84	+ 15,169,422	87.13
Gold..... oz.	+ 8,907	0.97	+ 184,124	0.97
Pig iron, from Canadian ore.... ton	— 42,904	27.05	— 387,279	22.57
Lead..... lb.	— 4,722,770	10.20	+ 947,149	36.52
Nickel..... "	+ 14,649,907	21.45	+ 8,542,900	41.69
Silver..... oz.	— 956,788	3.59	+ 3,625,793	21.41
<b>Total metallic</b> .....	—	—	+ 31,225,194	41.19
Asbestos and Asbestic..... ton	+ 17,674	12.91	+ 1,585,494	44.35
Coal..... "	+ 1,194,655	9.00	+ 6,746,375	21.01
Gypsum..... "	— 133,197	28.05	— 124,098	14.52
Graphite..... "	+ 1,336	50.70	+ 161,139	129.71
Magnesite..... "	+ 40,634	274.94	+ 437,245	345.40
Quartz..... "	+ 8,695	6.84	+ 36,653	17.87
Natural gas..... m. cu. ft.	+ 5,114,406	25.41	+ 216,997	5.86
Petroleum..... brl.	— 17,341	8.05	+ 91,712	30.51
Pyrites..... ton	+ 23,373	8.17	+ 98,829	10.03
Salt..... "	+ 4,133	3.45	+ 68,401	11.40
Cement..... brl.	— 321,982	5.67	+ 447,163	6.41
Clay products.....	—	—	+ 282,445	7.22
Lime..... bush	+ 435,632	8.63	+ 73,803	7.28
Sand and Gravel.....	—	—	+ 126,758	7.80
Stone.....	—	—	+ 376,938	8.88
<b>Total non-metallic</b> .....	—	—	+ 9,023,089	14.72
<b>Grand total</b> .....	—	—	+ 40,248,283	29.35

## 50.—Mineral Production of Canada in the Calendar Years 1915 and 1916.

Minerals.	1915.		1916. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.
		\$		\$
Actinolite..... ton.	220	2,420	250	2,750
Antimony, refined..... lb.	59,440	11,888	—	—
Antimony, ore..... ton	1,341	81,283	794	48,158
Arsenic, white..... "	2,396	147,830	2,186	262,349
Asbestos..... "	111,142	3,553,166	136,016	5,133,332
Asbestic..... "	25,700	21,819	18,500	27,147
Barytes..... "	550	6,875	1,368	19,393
Bricks, common..... NO.	234,732,882	1,755,187	—	2,358,245
Bricks, pressed..... "	49,817,160	492,774		
Bricks, paving..... "	1,227,647	20,694		
Bricks, other..... "	1,008,567	49,097		
Cement, Portland..... brl.	5,681,032	6,977,024	5,359,050	6,529,861
Chromite..... ton.	12,341	179,543	27,030 <sup>2</sup>	299,753
Coal..... ton.	12,267,023	32,111,182	14,428,278	38,797,437
Cobalt metallic and contained in oxide, etc..... lb.	504,212	536,268	841,859	926,045

<sup>1</sup>Subject to revision. <sup>2</sup>Crude ore.

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## 50.—Mineral Production of Canada in the Calendar Years 1915 and 1916—concluded

Minerals.	1915.		1916. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.
		\$		\$
Copper..... lb.	100,785,150	17,410,635	119,770,814	32,580,057
Corundum..... ton.	262	33,138	67	10,307
Felspar..... "	14,559	57,801	19,166	71,357
Fire clay and products..... \$	—	110,693	—	1,104,901 <sup>2</sup>
Fire-proofing and architectural terra-cotta..... "	—	253,401	—	—
Fluorspar..... ton.	—	—	1,284	10,238
Gold..... oz.	918,056	18,977,901	926,963	19,162,025
Graphite..... ton.	2,635	124,223	3,971	285,362
Grindstones..... "	2,580	35,768	3,328	50,982
Gypsum..... "	474,815	854,929	341,618	730,831
Iron ore (exports)..... "	89,730	181,381	140,608	393,689
Kaolin..... "	1,300	13,000	1,750	17,500
Lead..... lb.	46,316,450	2,593,721	41,593,680	3,540,870
Lime..... bush.	5,047,244	1,015,702	5,482,876	1,089,505
Manganese..... ton.	201	9,360	979	90,791
Magnesite..... "	14,779	126,584	55,413	563,829
Mica..... "	—	91,905	914	122,541
Mineral water..... \$	—	115,274	—	114,587
Molybdenite..... lb.	29,210	28,450	159,000	159,000
Natural gas..... m. cu. ft.	20,124,162	3,706,035	25,238,568	3,924,632
Nickel..... lb.	68,308,657	20,492,597	82,958,564	29,035,497
Ochres..... ton.	6,248	48,353	8,811	53,711
Peat..... "	300	1,050	300	1,500
Petroleum..... oz.	215,464	300,572	198,123	392,284
Phosphate..... ton.	217	2,502	203	2,514
Pig iron from Can. ore..... "	158,595	1,715,874	115,691	1,328,595
Platinum..... oz.	23	1,063	15	600
Pottery..... \$	—	64,900	—	—
Pyrites..... ton.	286,038	985,190	309,411	1,084,019
Quartz..... "	127,108	205,153	135,803	241,806
Salt..... "	119,900	600,226	124,033	668,627
Sand and gravel..... "	6,445,717	1,624,767	—	1,498,009
Sand lime-brick..... NO.	17,960,802	141,742	13,825,307	113,136
Sewer pipes..... \$	—	799,446	—	716,287
Silver..... oz.	26,625,960	13,228,842	25,669,172	16,854,635
Slate..... squares.	397	2,039	1,262	6,223
Stone, Granite..... \$	—	1,525,553	—	1,277,019
Limestone..... "	—	2,312,081	—	2,326,519
Marble..... "	—	158,027	—	118,810
Sandstone..... "	—	249,336	—	145,711
Talc..... ton	11,885	40,554	10,651	36,475
Tiles, drain..... \$	—	355,296	—	—
Tripolite..... ton	317	12,119	620	12,139
Zinc ore..... "	14,895	554,938	—	—
Zinc..... lb.	—	—	23,515,030	3,010,864
Total.....	—	137,109,171	—	177,357,454

<sup>1</sup>Subject to revision.<sup>2</sup>Includes value of drain tiles and pottery, etc.<sup>3</sup>Included with value of fire clay, etc.



## PRODUCTION.

## 51.—Value of Mineral Production in Canada, 1886-1916.

Calendar Year.	Total Value.	Value per capita.	Calendar Year.	Total Value.	Value per capita.	Calendar Year.	Total Value.	Value per capita.
	\$	cts.		\$	cts.		\$	cts.
1886....	10,221,255	2.23	1897....	28,485,023	5.46	1908....	85,557,101	13.16
1887....	10,321,331	2.23	1898....	38,412,431	7.32	1909....	91,831,441	13.70
1888....	12,518,894	2.67	1899....	49,231,005	9.27	1910....	106,823,625	15.44
1889....	14,013,113	2.96	1900....	64,420,877	12.04	1911....	103,220,994	14.42
1890....	16,763,353	3.50	1901....	65,797,911	12.16	1912....	135,048,206	18.39
1891....	18,976,616	3.92	1902....	63,231,836	11.36	1913....	145,634,812	19.34
1892....	16,623,415	3.39	1903....	61,740,513	10.85	1914....	128,863,075	16.68
1893....	20,035,082	4.04	1904....	60,082,771	10.27	1915....	137,109,171	17.29
1894....	19,931,158	3.98	1905....	69,078,959	11.49	1916....	177,357,454	21.79
1895....	20,505,917	4.05	1906....	79,286,697	12.81			
1896....	22,474,256	4.38	1907....	86,865,202	13.75			

## 52.—Value of Minerals produced in Canada by Provinces in the Calendar Years 1915 and 1916.

Province.	1915.		1916. <sup>1</sup>	
	Value.	Per cent. of total.	Value.	Per cent. of total.
	\$		\$	
Nova Scotia.....	18,088,342	13.19	19,963,985	11.26
New Brunswick.....	903,467	0.66	878,446	0.49
Quebec.....	11,619,275	8.48	14,397,909	8.12
Ontario.....	61,071,287	44.54	80,379,352	45.32
Manitoba.....	1,318,387	0.96	1,819,921	1.03
Saskatchewan.....	451,933	0.33	583,708	0.33
Alberta.....	9,909,347	7.23	13,336,702	7.52
British Columbia.....	28,689,425	20.92	40,191,744	22.66
Yukon Territory.....	5,057,708	3.69	5,805,687	3.27
Total.....	137,109,171	100.00	177,357,454	100.00

<sup>1</sup>Subject to revision.

## 53.—Quantity of Gold produced in Canada by Provinces during the Calendar Years 1862-1916.

Years.	Nova Scotia.	Quebec.	Ontario.	Alberta.	British Columbia.	Yukon Territory	Total.
	Ozs. fine.	Ozs. fine.	Ozs. fine.	Ozs. fine.	Ozs. fine.	Ozs. fine.	Ozs. fine.
1862-1866....	86,713	—	—	—	796,234	—	882,947
1867.....	25,763	—	—	—	120,012	—	145,775
1868.....	19,377	—	—	—	114,792	—	134,169
1869.....	16,855	—	—	—	85,865	—	102,720
1870.....	18,740	—	—	—	64,675	—	83,415
1871.....	18,139	—	—	—	87,048	—	105,187
1872.....	12,352	—	—	—	77,931	—	90,283
1873.....	11,180	—	—	—	63,166	—	74,346
1874.....	8,623	—	—	—	89,233	—	97,856
1875.....	10,576	—	—	—	119,724	—	130,300

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53.—Quantity of Gold produced in Canada by Provinces during the Calendar Years 1862-1916—concluded.

Years.	Nova Scotia.	Quebec.	Ontario.	Alberta.	British Columbia.	Yukon Territory.	Total.
	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.
1876. ....	11,300	—	—	—	86,429	—	97,729
1877. ....	15,925	583	—	—	77,796	—	94,304
1878. ....	11,864	868	—	—	61,688	—	74,420
1879. ....	12,980	1,160	—	—	62,407	—	76,547
1880. ....	12,472	1,605	—	—	49,044	—	63,121
1881. ....	10,147	2,741	—	—	50,636	—	63,524
1882. ....	13,307	827	—	—	46,154	—	60,288
1883. ....	14,571	860	—	—	38,422	—	53,853
1884. ....	15,168	422	—	—	35,612	—	51,202
1885. ....	20,945	103	—	—	34,527	4,837	55,575
1886. ....	22,038	193	—	—	43,714		70,782
1887. ....	20,009	78	327	102	33,558	3,386	57,460
1888. ....	21,137	181	—	58	29,834	1,935	53,145
1889. ....	24,673	58	—	967	28,489	8,466	62,653
1890. ....	22,978	65	—	193	23,918	8,466	55,620
1891. ....	21,841	87	97	266	20,792	1,935	45,018
1892. ....	18,865	628	344	508	19,327	4,233	43,905
1893. ....	18,436	759	708	466	18,360	8,514	47,243
1894. ....	18,834	1,412	1,917	726	25,664	6,047	54,600
1895. ....	21,919	62	3,015	2,419	61,289	12,094	100,798
1896. ....	23,876	145	5,563	2,661	86,504	14,513	133,262
1897. ....	27,195	44	9,157	2,419	131,805	120,937	291,557
1898. ....	26,054	295	12,863	1,209	142,215	483,750	666,386
1899. ....	29,876	238	20,394	726	203,295	774,000	1,028,529
1900. ....	28,955	—	14,391	242	228,916	1,077,553	1,350,057
1901. ....	26,459	145	11,844	726	257,292	870,750	1,167,216
1902. ....	30,348	391	11,118	484	288,383	701,437	1,032,161
1903. ....	25,533	180	9,076	48	284,108	592,594	911,539
1904. ....	10,362	140	1,935	24	275,975	507,938	796,374
1905. ....	13,707	191	4,402	121	285,529	381,001	684,951
1906. ....	12,223	165	3,202	39	269,886	270,900	556,415
1907. ....	13,675	—	3,212	33	236,216	152,381	405,517
1908. ....	11,842	—	3,212	50	286,858	174,150	476,112
1909. ....	10,193	193	1,569	25	250,320	191,565	453,865
1910. ....	7,928	124	3,089	89	261,386	221,091	493,707
1911. ....	7,781	613	2,062	10	236,496	224,197	473,159
1912. ....	4,385	642	86,523	73	251,815	268,447	611,885
1913. ....	2,174	701	219,801	—	297,459	282,838	802,973
1914. ....	2,904	1,292	268,264	48	252,730	247,940	773,178
1915. ....	6,636	1,099	406,577	195	273,376	230,173	918,056
1916. ....	4,562	1,034	492,481	82	219,683	212,700	930,492

## PRODUCTION.

54.—Value of Gold produced in Canada by Provinces during the Calendar Years 1862-1916.

Years.	Nova Scotia.	Quebec.	Ontario.	Alberta.	British Columbia.	Yukon Territory.	Total.
	\$	\$	\$	\$	\$	\$	\$
1862-1866	1,792,516	—	—	—	16,459,627	—	18,252,143
1867. ....	532,563	—	—	—	2,480,868	—	3,013,431
1868. ....	400,555	—	—	—	2,372,972	—	2,773,527
1869. ....	348,427	—	—	—	1,774,978	—	2,123,405
1870. ....	387,392	—	—	—	1,336,956	—	1,724,348
1871. ....	374,972	—	—	—	1,799,440	—	2,174,412
1872. ....	255,349	—	—	—	1,610,972	—	1,866,321
1873. ....	231,122	—	—	—	1,305,749	—	1,536,871
1874. ....	178,244	—	—	—	1,844,618	—	2,022,862
1875. ....	218,629	—	—	—	2,474,904	—	2,693,533
1876. ....	233,585	—	—	—	1,786,648	—	2,020,233
1877. ....	329,205	12,057	—	—	1,608,182	—	1,949,444
1878. ....	245,253	17,937	—	—	1,275,204	—	1,538,394
1879. ....	268,328	23,972	—	—	1,290,058	—	1,582,358
1880. ....	257,823	33,174	—	—	1,013,827	—	1,304,824
1881. ....	209,755	56,661	—	—	1,046,737	—	1,313,153
1882. ....	275,090	17,093	—	—	954,085	—	1,246,268
1883. ....	301,207	17,787	—	—	794,252	—	1,113,246
1884. ....	313,554	8,720	—	—	736,165	—	1,058,439
1885. ....	432,971	2,120	—	—	713,738	—	1,148,829
1886. ....	455,564	3,981	—	—	903,651	100,000	1,463,196
1887. ....	413,631	1,604	6,760	2,100	693,709	70,000	1,187,804
1888. ....	436,939	3,740	—	1,200	616,731	40,000	1,098,610
1889. ....	510,029	1,207	—	20,000	588,923	175,000	1,295,159
1890. ....	474,990	1,350	—	4,000	494,436	175,000	1,149,776
1891. ....	451,503	1,800	2,000	5,500	429,881	40,000	930,614
1892. ....	389,965	12,987	7,118	10,506	399,525	87,500	907,601
1893. ....	381,095	15,696	14,637	9,640	379,535	176,000	976,603
1894. ....	389,338	29,196	39,624	15,000	530,530	125,000	1,128,688
1895. ....	453,119	1,281	62,320	50,000	1,266,954	250,000	2,083,674
1896. ....	493,568	3,000	115,000	55,000	1,788,206	300,000	2,754,774
1897. ....	562,165	900	189,294	50,000	2,724,657	2,500,000	6,027,016
1898. ....	538,590	6,089	265,889	25,000	2,939,852	10,000,000	13,775,420
1899. ....	617,604	4,916	421,591	15,000	4,202,473	16,000,000	21,261,584
1900. ....	598,553	—	297,495	5,000	4,732,105	22,275,000	27,908,153
1901. ....	546,963	3,000	244,837	15,000	5,318,703	18,000,000	24,128,503
1902. ....	627,357	8,073	229,828	10,000	5,961,409	14,500,000	21,336,667
1903. ....	527,806	3,712	188,036	1,000	5,873,036	12,250,000	18,843,590
1904. ....	214,209	2,900	40,000	500	5,704,908	10,500,000	16,462,517
1905. ....	283,353	3,940	91,000	2,500	5,902,402	7,876,000	14,159,195
1906. ....	252,676	3,412	66,193	800	5,579,039	5,600,000	11,502,120
1907. ....	282,686	—	66,399	675	4,883,020	3,150,000	8,382,780
1908. ....	244,799	—	66,389	1,037	5,929,880	3,600,000	9,842,105
1909. ....	210,711	3,990	32,425	525	5,174,579	3,960,000	9,382,230
1910. ....	163,891	2,565	63,849	1,850	5,403,318	4,570,362	10,205,835
1911. ....	160,854	12,672	42,625	207	4,930,145	4,634,574	9,781,077
1912. ....	90,638	13,270	1,788,596	1,509	5,205,485	5,549,296	12,648,794
1913. ....	44,935	14,491	4,543,690	—	6,149,027	5,846,780	16,598,923
1914. ....	60,031	26,708	5,545,509	992	5,224,393	5,125,374	15,983,007
1915. ....	137,180	22,720	8,404,693	4,026	5,651,184	4,758,098	18,977,901
1916. ....	94,305	21,375	10,180,485	1,695	4,540,216	4,396,900	19,234,976

## MINERALS.

## 55.—Quantity and Value of Silver produced in Canada during the Calendar Years 1887-1916.

Years	Oz.	Value.	Years	Oz.	Value.	Years	Oz.	Value.
		\$			\$			\$
1887...	355,083	347,271	1897	5,558,456	3,323,395	1907	12,779,799	8,348,659
1888...	437,232	410,998	1898	4,452,333	2,593,929	1908	22,106,233	11,686,239
1889...	383,318	358,785	1899	3,411,644	2,032,658	1909	27,529,473	14,178,504
1890...	400,687	419,118	1900	4,468,225	2,740,362	1910	32,869,264	17,580,455
1891...	414,523	409,549	1901	5,539,192	3,265,354	1911	32,559,044	17,355,272
1892...	310,651	272,130	1902	4,291,317	2,238,351	1912	31,955,560	19,440,165
1893...	—	330,128	1903	3,198,581	1,709,642	1913	31,845,803	19,040,924
1894...	847,697	534,049	1904	3,577,526	2,047,095	1914	28,449,821	15,593,631
1895...	1,578,275	1,030,299	1905	6,000,023	3,621,133	1915	26,625,960	13,228,842
1896...	3,205,343	2,149,503	1906	8,473,379	5,659,455	1916	25,459,741	16,717,121

## 56.—Quantity and Value of Silver produced in Canada, by Provinces, during the Calendar Years 1887-1916.

Years.	Ontario.		Quebec.		British Columbia.		Yukon Territory.	
	Oz.	\$	Oz.	\$	Oz.	\$	Oz.	\$
1887...	190,495	186,304	146,898	143,666	17,690	17,301	—	—
1888...	208,064	195,580	149,388	140,425	79,780	74,993	—	—
1889...	181,609	169,986	148,517	139,012	53,192	49,787	—	—
1890...	158,715	166,016	171,545	179,436	70,427	73,666	—	—
1891...	225,633	222,926	185,584	183,357	3,306	3,266	—	—
1892...	41,581	36,425	191,910	168,113	77,160	67,592	—	—
1893...	—	8,689	—	126,439	—	195,000	—	—
1894...	—	—	101,318	63,830	746,379	470,219	—	—
1895...	—	—	81,753	53,369	1,496,522	976,930	—	—
1896...	—	—	70,000	46,942	3,135,343	2,102,561	—	—
1897...	5,000	2,990	80,475	48,116	5,472,971	3,272,289	—	—
1898...	85,000	49,521	74,932	43,655	4,292,401	2,500,753	—	—
1899...	202,000	120,352	40,231	23,970	2,939,413	1,751,302	230,000	137,034
1900...	161,650	99,140	58,400	35,817	3,958,175	2,427,548	290,000	177,857
1901...	151,400	89,250	41,459	24,440	5,151,333	3,036,711	195,000	114,953
1902...	145,000	75,632	42,500	22,168	3,917,917	2,043,586	185,900	96,985
1903...	17,777	9,502	28,600	15,287	2,996,204	1,601,471	156,000	83,362
1904...	206,875	118,376	15,000	8,583	3,222,481	1,843,935	133,170	76,201
1905...	2,451,356	1,479,442	19,620	11,841	3,439,417	2,075,757	89,630	54,093
1906...	5,401,766	3,607,894	17,686	11,813	2,990,262	1,997,226	63,665	42,522
1907...	9,982,363	6,521,178	16,000	10,452	2,745,448	1,793,519	35,988	23,510
1908...	19,398,545	10,254,847	13,299	7,030	2,631,389	1,391,058	63,000	33,304
1909...	24,822,099	12,784,126	13,233	6,815	2,649,141	1,364,387	45,000	23,176
1910...	30,366,366	16,241,755	7,593	4,061	2,407,887	1,287,883	87,418	46,756
1911...	30,540,754	16,279,443	18,435	9,827	1,887,147	1,005,924	112,708	60,078
1912...	29,214,025	17,772,352	9,465	5,758	2,651,002	1,612,737	81,068	49,318
1913...	28,411,261	16,987,377	34,573	20,672	3,312,343	1,980,483	87,626	52,392
1914...	25,139,214	13,779,055	57,737	31,646	3,159,897	1,731,971	92,973	50,959
1915...	22,748,609	11,302,419	63,450	31,524	3,565,852	1,771,658	248,049	123,241
1916...	21,608,158	14,188,133	98,610	64,748	3,392,872	2,227,794	360,101	236,446



## PRODUCTION.

57.—Quantity and Value of Copper produced in Canada, by Provinces, during the Calendar Years, 1886-1916.

Year	Ontario.		Quebec.		British Columbia.		Total.	
	Lb.	\$	Lb.	\$	Lb.	\$	Lb.	\$
1886	165,000	18,150	3,340,000	367,400	—	—	3,505,000	385,550
1887	322,524	36,284	2,937,900	330,514	—	—	3,260,424	366,798
1888	nil.	nil.	5,562,864	927,107	—	—	5,562,864	927,107
1889	1,466,752	201,678	5,315,000	730,813	—	—	6,781,752	932,491
1890	1,303,065	205,233	4,710,606	741,920	—	—	6,013,671	947,153
1891	4,127,697	531,234	5,401,704	695,469	—	—	9,529,401	1,226,703
1892	2,203,795	254,538	4,883,480	564,042	—	—	7,087,275	818,580
1893	3,641,504	391,461	4,468,352	480,348	—	—	8,109,856	871,809
1894	5,207,679	497,854	2,176,430	208,067	324,680	31,039	7,708,789	736,960
1895	4,576,337	492,414	2,242,462	241,288	952,840	102,526	7,771,639	836,228
1896	3,167,256	344,598	2,407,290	261,903	3,818,556	415,459	9,393,012	1,021,960
1897	5,500,652	621,023	2,474,970	279,424	5,325,180	601,213	13,300,802	1,501,660
1898	8,375,223	1,007,539	2,100,235	252,658	7,271,678	874,783	17,747,136	2,134,980
1899	5,723,324	1,007,877	1,632,560	287,494	7,722,591	1,359,948	15,078,475	2,655,319
1900	6,740,058	1,091,215	2,220,000	359,418	9,977,080	1,615,289	18,937,138	3,065,922
1901	8,695,831	1,401,507	1,527,442	246,178	27,603,746	4,448,896	37,827,019	6,096,581
1902	7,408,202	861,278	1,640,000	190,666	29,636,057	3,445,488	38,684,259	4,497,432
1903	7,172,533	949,285	1,152,000	152,467	34,359,921	4,547,735	42,684,454	5,649,487
1904	4,913,594	630,070	760,000	97,455	35,710,128	4,579,110	41,383,722	5,306,635
1905	8,779,259	1,368,686	1,621,243	252,752	37,692,251	5,876,222	48,092,753	7,497,660
1906	10,638,231	2,050,838	1,981,169	381,930	42,990,488	8,287,706	55,609,888	10,720,474
1907	14,104,337	2,821,432	1,517,990	303,659	40,832,720	8,168,177	56,455,047	11,293,268
1908	15,005,171	1,981,883	1,282,220	169,330	47,274,614	6,244,031	63,561,809	8,395,244
1909	15,746,699	2,044,237	1,088,212	141,272	35,658,952	4,629,245	52,493,863	6,814,754
1910	19,259,016	2,453,213	877,347	111,757	35,270,006	4,492,693	55,692,369 <sup>1</sup>	7,094,094 <sup>1</sup>
1911	17,932,263	2,219,297	2,436,190	301,503	35,279,558	4,366,198	55,648,011	6,886,998
1912	22,250,601	3,635,971	3,282,210	536,346	50,526,656	8,256,561	77,832,127	12,718,548
1913	25,885,929	3,952,523	3,455,887	527,679	45,791,579	6,991,916	76,976,925	11,753,606
1914	28,948,211	3,937,535	4,201,497	571,488	41,221,628	5,606,966	75,738,886	10,301,935
1915	39,351,464	6,799,693	4,197,482	725,115	56,692,988	9,793,714	100,785,150	17,410,635
1916	44,997,035	12,240,094	5,703,347	1,551,424	63,642,550	17,312,046	117,150,028	31,867,150

## PRODUCTION IN YUKON TERRITORY (INCLUDED IN TOTALS.)

	Lb.	\$		Lb.	\$
1912.....	1,772,660	289,670	1915.....	533,216	92,113
1913.....	1,843,530	281,489	1916.....	2,807,096	763,586
1914.....	1,367,050	185,946			

<sup>1</sup>Includes 286,000 lb., valued at \$36,431, produced in Nova Scotia and Yukon Territory, not given separately.

## MINERALS.

## 58.—Quantity and Value of Nickel produced in Canada during the Calendar Years 1889-1916.

Years.	Quantity.	Value.	Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Lb.	\$		Lb.	\$		Lb.	\$
1889	830,177	498,288	1899	5,744,006	2,067,840	1909	26,282,991	9,461,877
1890	1,435,742	933,232	1900	7,089,227	3,327,707	1910	37,271,032	11,181,310
1891	4,035,317	2,421,208	1901	9,189,047	4,594,523	1911	34,098,744	10,229,623
1892	2,443,717	1,399,956	1902	10,693,410	5,025,903	1912	44,841,542	13,452,463
1893	3,982,982	2,071,151	1903	12,505,519	5,002,204	1913	49,676,772	14,903,032
1894	4,907,430	1,870,958	1904	10,547,883	4,219,153	1914	45,517,937	13,655,281
1895	3,888,525	1,360,984	1905	18,876,315	7,550,520	1915	68,308,357	20,492,597
1896	3,397,112	1,188,990	1906	21,490,955	8,948,834	1916	82,958,564	29,035,498
1897	3,997,647	1,399,176	1907	21,189,793	9,535,407			
1898	5,517,690	1,820,838	1908	19,143,111	8,231,538			

## 59.—Production of principal Minerals in Canada for the Calendar Years 1909-1916.

Years.	Lead. <sup>3</sup>		Iron Ore. Shipments		Zinc Ore.	
	Lb.	\$	Ton.	\$	Ton.	\$
1908.....	43,195,733	1,814,221	238,082	568,189	452	3,215
1909.....	45,857,424	1,692,139	268,043	659,316	18,371 <sup>2</sup>	242,699
1910.....	32,987,508	1,216,249	259,418	574,362	5,063	120,003
1911.....	23,784,969	827,717	210,344	522,319	2,590	101,072
1912.....	35,763,476	1,597,554	215,883	523,315	6,415	215,149
1913.....	37,662,703	1,754,705	307,634	629,843	7,889	186,827
1914.....	36,337,765	1,627,568	244,854	542,041	10,893	262,563
1915.....	46,316,450	2,593,721	398,112	774,427	14,895	554,938
1916 <sup>1</sup> .....	41,593,68 <sup>1</sup>	3,540,870 <sup>1</sup>	339,600 <sup>1</sup>	814,144 <sup>1</sup>	235,159 <sup>1</sup>	13,000,864 <sup>1</sup>

<sup>1</sup>Subject to revision. <sup>2</sup>Includes 7,424 tons shipped in 1908. <sup>3</sup>All produced in British Columbia. A small quantity was produced in Ontario in 1916. <sup>4</sup>Cwts of Zinc.

## PIG IRON.

Years	Nova Scotia.		Quebec.		Ontario.		Totals.	
	Tons.	\$	Tons.	\$	Tons.	\$	Tons.	\$
1909	345,380	3,453,800	4,770	125,623	407,012	6,002,441	757,162	9,581,864
1910	350,287	4,203,444	3,237	85,255	447,273	6,956,923	800,797	11,245,622
1911	390,242	4,682,904	658	17,282	526,635	7,066,929	917,535	12,307,125
1912	424,994	6,374,910	—	—	589,592	8,176,089	1,014,587	14,550,999
1913	480,068	7,201,020	—	—	648,899	9,338,992	1,128,967	16,540,012
1914	227,052	2,951,676	—	—	556,112	7,051,189	783,164	10,002,856
1915	420,275	5,462,847	—	—	493,500	6,129,972	913,775	11,374,199
1916 <sup>1</sup>	470,055	7,050,825	—	—	699,202	9,700,073	1,169,257	16,750,898

## COAL.

Year.	Nova Scotia.	New Brunswick.	Saskatchewan.	Alberta.	British Columbia.	Yukon Territory.	Total production.	Value.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	\$
1909	5,652,089	49,029	192,125	1,994,741	2,606,127	7,364	10,501,475	24,781,236
1910	6,431,142	55,455	181,156	2,894,469	3,330,745	16,185	12,909,152	30,909,779
1911	7,004,420	55,781	205,779	1,511,036	2,542,532	2,840	11,323,388	26,467,646
1912	7,783,888	44,780	225,342	3,240,577	3,208,997	9,245	14,512,829	36,019,044
1913	7,980,073	70,311	212,897	4,014,755	2,714,420	19,722	15,012,178	37,334,940
1914	7,370,924	98,849	232,299	3,683,015	2,239,799	13,443	13,637,529	33,471,801
1915	7,463,370	127,391	240,107	3,360,818	2,065,613	9,724	13,267,023	32,111,182
1916 <sup>1</sup>	6,894,728	137,058	280,835	4,563,020	2,582,727	3,300	14,461,678	38,857,557

<sup>1</sup>Subject to revision.

## PRODUCTION.

## 59.—Production of principal Minerals in Canada for the Calendar Years 1909-1916—concluded.

Years.	Asbestos.		Asbestic.		Total.	
	Tons.	\$	Tons.	\$	Tons.	\$
1909.....	63,349	2,284,587	23,951	17,188	87,300	2,301,775
1910.....	77,508	2,555,974	24,707	17,629	102,215	2,573,603
1911.....	101,393	2,922,062	26,021	21,046	127,414	2,943,108
1912.....	111,561	3,117,572	27,740	19,707	136,301	3,137,279
1913.....	136,951	3,830,909	24,135	19,016	161,086	3,849,925
1914.....	96,542	2,892,266	21,031	17,540	117,573	2,909,806
1915.....	111,142	3,553,166	25,700	21,819	136,842	3,574,985
1916 <sup>1</sup> .....	136,016	5,133,332	18,500	27,147	154,516	5,160,479

## 60.—Production of Cement in Canada for the Calendar Years 1902-1916.

Years.	Natural rock cement.		Portland cement.		Total cement.	
	brl.	\$	brl.	\$	brl.	\$
1902.....	127,931	98,932	594,594	1,028,618	722,525	1,127,550
1903.....	92,252	74,655	627,741	1,150,592	719,993	1,225,247
1904.....	56,814	50,247	910,358	1,287,992	967,172	1,338,239
1905.....	14,184	10,274	1,346,548	1,913,740	1,360,732	1,924,014
1906.....	8,610	6,052	2,119,764	3,164,807	2,128,374	3,170,859
1907.....	5,775	4,043	2,436,093	3,777,328	2,441,868	3,781,371
1908.....	1,044	815	2,665,289	3,709,139	2,666,333	3,709,954
1909.....	—	—	4,067,709	5,345,802	4,067,709	5,345,802
1910.....	—	—	4,753,975	6,412,215	4,753,975	6,412,215
1911.....	—	—	5,692,915	7,644,537	5,692,915	7,644,537
1912.....	—	—	7,132,732	9,106,556	7,132,732	9,106,556
1913.....	—	—	8,658,805	11,019,418	8,658,805	11,019,418
1914.....	—	—	7,172,480	9,187,924	7,172,480	9,187,924
1915.....	—	—	5,681,032	6,977,024	5,681,032	6,977,024
1916 <sup>1</sup> .....	—	—	5,359,050	6,529,861	5,359,050	6,529,861

**Smelter Production.**—Table 61 shows the character and quantities of the ores treated in Canadian smelters. The figures do not represent the total production from smelting ores mined in Canada, since considerable quantities of copper and silver ores are shipped to smelters outside of Canada.

## 61.—Character and Quantities of Ores treated in Canadian Smelters, 1911-1916.

Ores.	1911.	1912.	1913.	1914.	1915.	1916.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Nickel-Copper.....	610,834	725,065	823,403	947,053	1,272,283	1,521,689
Silver-Cobalt-Nickel, Arsenic.....	9,330	8,097	6,124	5,681	7,526	7,771
Lead and other ores treated in lead fur- naces.....	55,408	59,932	88,100	71,224	99,528	107,154
Copper-Gold-Silver...	1,517,981	2,212,316	2,119,754	1,626,197	2,245,245	2,450,104
<b>Totals.....</b>	<b>2,193,553</b>	<b>3,005,410</b>	<b>3,037,381</b>	<b>2,650,155</b>	<b>3,624,582</b>	<b>4,086,718</b>

<sup>1</sup>Subject to revision.



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**Iron Blast Furnaces in Canada in 1916.**—Of 19 furnaces 13 were in blast in 1916 for varying periods of time. The total daily capacity of the 19 furnaces is about 4,835 tons. The operating companies, with numbers and capacities of furnaces, were as follows:

DOMINION IRON AND STEEL Co., Sydney, C.B.: Six completed furnaces of 280 tons capacity each per day; three operated throughout 1916; one for 257 days and one for 122 days; one furnace idle throughout the year.

NOVA SCOTIA STEEL & COAL Co., LTD., New Glasgow, N.S.: Two stacks and one set of stoves at Sydney Mines, C.B., of 300 tons capacity; operated throughout 1916.

LONDONDERRY IRON & MINING Co., LTD., Londonderry, N.S. (in liquidation): One furnace of 100 tons capacity; idle throughout the year, not operated since 1908.

CANADA IRON FOUNDRIES, LTD., Montreal, Que.: Two furnaces of 125 tons and 250 tons at Midland, Ont.; both idle throughout the year, not operated since 1913.

STANDARD IRON Co., LTD., Deseronto, Ont.: One furnace at Deseronto with a daily capacity of 65 tons, operated throughout 1916; one furnace of 65 tons at Parry Sound, idle throughout the year, not operated since 1913.

THE STEEL Co. OF CANADA, LTD., Hamilton, Ont.: Two furnaces, one of 260 tons capacity, operated for 353 days in 1916; a second furnace of 430 tons capacity operated 296 days.

ALGOMA STEEL CORPORATION, LTD., Sault Ste. Marie, Ont.: Three furnaces at Steelton, near Sault Ste. Marie, two of 280 tons capacity each, and one of 500 tons capacity, operated throughout the year.

THE ATIKOKAN IRON Co., LTD., Port Arthur, Ont.: One furnace of 175 tons capacity, idle throughout the year, not operated since 1911.

THE CANADIAN FURNACE Co., LTD., Port Colborne, Ont.: One furnace of 325 capacity, operated 316 days in 1916.

**Mines Departments of Provincial Governments.**—In addition to the Mines Department of the Dominion Government, from whose reports the foregoing tables and information have been compiled, there are Departments of Mines of the Provincial Governments of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia, as well as the Mines Branch of the Department of Public Works of the Provincial Government of Alberta.

**Nova Scotia.**—In Nova Scotia, the principal mining product is coal; and according to the annual report of the Department of Public Works and Mines the quantity of coal raised in the year ended September 30, 1916, was 6,496,472 long tons, as compared with 6,379,464 tons in 1915, an increase of 117,008 tons notwithstanding a shortage of men in the collieries and of means for water transportation. The production of other minerals in 1916 was, in short tons, as follows, the corresponding figures of 1915 being given within round brackets: pig iron 429,615 (295,868); steel ingots 502,106 (369,310); limestone 514,574 (353,412); coke 669,478 (452,099); gypsum 279,400 (230,216); building stone 32,399 (39,654). The number of bricks made was 19,504,987, as compared with 1,922,100 in 1915 and 14,543,608 in 1914, and the production of drain pipe and tile was 1,355,297 feet, as against 1,022,470 feet in 1915. The production of gold was 4,963 oz., as compared with 7,216 oz. in 1915, and of antimony ore 14,149 long tons, as compared with 10,872 tons in 1915. The report of the Inspector of Mines, dated December 20, 1916, describes the proceedings at two conferences held at Halifax on March 14 and 15, and August 25, 1915, on the ways and means of reducing the number of accidents in the mines



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of the province, and referred to a statement that a reduction of fatal and non-fatal accidents to the amount of 31 and 35 p.c., respectively, had taken place during nine months of the fiscal year 1915-16, as against the corresponding period of the previous year.

**New Brunswick.**—The annual report for the year ended October 31, 1916, of the Minister of Lands and Mines, states that the mining industries of the province include three commercially successful branches, viz., gypsum, coal and oil with natural gas. The production of gypsum has been seriously hampered by war conditions, and, in 1916, 41,360 tons were quarried as against 72,000 tons last year. Of the amount quarried, 34,560 tons were manufactured into calcined plaster and hard wall plaster and shipped to various points in Canada. The remaining 6,800 tons of crude rock were exported to the United States. The production of coal in 1916 is given as 118,498 tons for ten mining companies in the Grand Lake Region, as compared with 109,792 tons in 1915. Royalty was also paid on 3,896 tons in Kent county for 1916 as against 5,263 tons in 1915. Natural gas is sold for distribution in the municipalities of Moncton and Hillsborough, the number of domestic consumers being 2,824, an increase of 385 during the year. The total consumption of gas in Moncton and Hillsborough in December, 1916, was 70,845,000 cubic feet, as compared with 52,440,000 cubic feet in December, 1915. The production of oil during the year 1915-16 was 27,250 gallons, as against 27,606 gallons for the nine months January to September, 1915.

**Quebec.**—The annual report of the Quebec Superintendent of Mines shows that the value of the mineral production of the province for the calendar year 1916 amounted to \$13,070,566, as compared with \$11,465,873 in 1915, \$11,732,783 in 1914, and \$13,119,811 in 1913, the highest on record. The figures for 1916 show an increase over those of 1915 of \$1,604,693, or 14 p.c. Of the total the products of the mine are valued at \$7,982,430, and building materials at \$5,088,136; the former show an increase of 52.8 p.c. and the latter a decrease of 18.5 p.c. Amongst the principal products, with their respective values in 1916, are asbestos (\$5,182,905); cement (\$2,525,841); copper and sulphur ore (\$1,273,724); limestone and marble (\$88,295); brick (\$742,163); magnesite (\$525,966); chromite (\$299,070); lime (\$275,945), and granite (\$264,270). Important shipments of molybdenite were made from the Quyon mine first opened in April, 1916, and the production was 129,267 lb. of the value of \$129,267. The Quyon mine is stated to be probably the largest producer of molybdenite in America.

**Ontario.**—Figures compiled by the Ontario Bureau of Mines show that the total value of the mineral production of Ontario in the calendar year 1916 was \$65,303,822, as compared with \$54,245,679 in 1915 and \$46,295,959 in 1914. Of the total value in 1916, \$55,002,918 represents the value of the metallic and \$10,300,904 the value of the non-metallic production. A considerable expansion took place in the production of minerals in 1916, especially gold, nickel, copper, cobalt, molybdenite and lead, due in large part to the war and consequent high prices for metals. Items for 1916 which did not appear in the list of mineral products for 1915 are lead (796,833 lb.), a sample shipment of asbestos (500 lb.) and fluorspar (1,283 lb.), the last named being in

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great demand for use as a flux by pig iron and steel makers. Fluorspar had not been produced in Ontario since 1911, nor lead since 1912; asbestos is a new item for Ontario. Gold shows a production of 497,833 oz., of the value of \$10,339,259, an increase over 1915 of 86,245 oz., or \$1,837,868. The total shipments of silver amounted to 20,007,367 fine oz. of the value of \$12,703,591, as compared with 24,823,660 oz. in 1915 of the value of \$12,174,312. The average value of the silver works out to 63.511 cents per oz. In New York the average price for the year was 66.661 cents per oz., as compared with 49.69 cents in 1915. The lowest figure in 1916 was 55 $\frac{7}{8}$  cents and the highest 77 $\frac{1}{4}$  cents per oz. The enhanced price of this metal is due chiefly to the great demand from belligerent countries where silver is being coined at an increased rate to replace gold withdrawn from circulation. During the year 1916 dividends and bonuses declared by silver mines at Cobalt amounted to \$5,519,258, making the total return to shareholders \$65,290,170 since the beginning of operations there in 1903. Table 62 shows the total production and value of silver at the Cobalt Camp each year from 1904 to 1916. The total for the 13 years is 255,189,988 oz. of the value of \$135,748,876. Gold mines at Porcupine and Kirkland Lake paid dividends in 1916 amounting to \$4,431,750, and the total gold mine dividends from these two camps to the end of 1916 amounted to \$9,786,625. The production of nickel and copper matte again shows a large increase, the figures for 1916 being 80,010 tons as compared with 67,703 tons in 1915 and 47,150 tons in the pre-war year of 1913. In 1916 the nickel and copper contents of the matte were 41,299 and 22,430 tons, respectively, with total values of \$20,649,279 for nickel and \$8,332,153 for copper. The total of these two values, viz. \$28,981,432, exceeds that of any other item and constitutes about 44 p.c. of the total value of the mineral production of the province.

**Alberta.**—The Mines Branch of the Department of Public Works reports that the total production of coal in Alberta during the year 1916 was 4,648,604 short tons, as compared with 3,434,891 tons in 1915. The production in 1916 of coke was 41,950 tons, as compared with 23,826 in 1915, and of briquettes 107,959 tons, as compared with 83,180 tons. Of natural gas the consumption in the province during 1916 was, according to the Mines Department of the Dominion Government, 6,818,131,000 cubic feet, as compared with 4,481,947,000 cubic feet in 1915.

**British Columbia.**—According to the Annual Report for 1916 of the Provincial Mineralogist, the total value of the mineral production of British Columbia from 1852 to 1916 was \$558,560,715, distributed between the different mineral products as follows: Placer gold \$74,620,103; lode gold \$91,350,784; silver \$41,358,012; lead \$36,415,124; copper \$114,559,364; zinc \$7,212,759; coal and coke \$165,829,315; other metals and building stone \$27,215,254. Table 63 shows the value of the total mineral production of the province from 1852 to 1916, inclusive. The value of the total mineral production for the calendar year 1916 was \$42,290,462, as compared with \$29,477,508 in 1915, an increase of \$12,842,954, or nearly 44 p.c., and an increase over that of the previous record year, 1912, of \$9,849,662, or 30.3 p.c. The principal mineral

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products of British Columbia are gold, silver, lead, copper, zinc and coal. Table 64 shows the quantity and value of the mineral production of British Columbia for the three calendar years 1914-1916. The gross value of the metallic minerals recovered in 1916 was \$32,063,514, which represents an increase over 1915 of \$11,301,365 or about 54 p.c. The metalliferous output for 1916 was the greatest in the mining history of the province, being nearly 76 p.c. greater than that of the year 1912. The increase is due in part to the higher market prices of the metals during the year and in part to the much larger production of some metals, notably copper and zinc. The production of copper was 8,460,959 lb., or 14.85 p.c. more than in the previous record year of 1915, while the zinc output was three times in quantity that of the previous year. The year 1916 was a record one for mining in British Columbia, all branches of the industry, excepting gold and the building materials, showing increased production. The uncertainty of war conditions during 1915 was not such a prominent feature in 1916, and steady operations were general throughout the year. The continued enormous and ever-increasing demand for shells of all kinds for the Allies has continued the great consumption of copper, lead and zinc, with the result that the market prices of these metals remained at an abnormally high level all the year.

62.—Production of Silver at the Cobalt Camp, Ontario, 1904-16.

Year.	Oz.	Value.	Average price per oz.	Year.	Oz.	Value.	Average price per oz.
		\$	Cents.			\$	Cents.
1904. ....	206,875	111,887	57.2	1911. . .	31,507,791	15,953,847	53.3
1905. ....	2,451,356	1,360,503	60.4	1912. . .	30,243,859	17,408,935	60.8
1906. ....	5,401,766	3,667,551	66.8	1913. . .	29,681,975	16,553,981	57.8
1907. ....	10,023,311	6,155,391	67.5	1914. . .	25,162,841	12,765,461	54.8
1908. ....	19,437,875	9,133,378	52.9	1915. . .	24,746,534	12,135,816	49.69
1909. ....	25,897,825	12,461,576	51.5	1916. . .	19,782,799	12,562,503	65.661
1910. ....	30,645,181	15,478,047	53.5				
				<b>Total</b>	<b>255,189,988</b>	<b>135,748,876</b>	—

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## 63.—Value of Total Mineral Production of British Columbia, 1852-1916.

Year.	Value.	Year.	Value.	Year.	Value.
	\$		\$		\$
1852-1892.....	81,090,069	1901.....	20,086,780	1910.....	26,377,066
1893.....	3,588,413	1902.....	17,486,550	1911.....	23,499,072
1894.....	4,225,717	1903.....	17,495,954	1912.....	32,440,800
1895.....	5,643,042	1904.....	18,977,359	1913.....	30,296,398
1896.....	7,507,956	1905.....	22,461,325	1914.....	26,388,825
1897.....	10,455,268	1906.....	24,980,546	1915.....	29,447,508
1898.....	10,906,861	1907.....	25,882,560	1916.....	42,290,462
1899.....	12,393,131	1908.....	23,851,277		
1900.....	16,344,751	1909.....	24,443,025	<b>Total.....</b>	<b>558,560,715</b>

## 64.—Quantity and Value of Mineral Products in British Columbia for the Calendar Years 1914-1916.

Products.	1914.		1915.		1916.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		\$		\$		\$
Gold, placer.oz.	—	565,000	38,500	770,000	29,025	580,500
“ lode... “	247,170	5,109,004	250,021	5,167,934	221,932	4,587,334
Silver..... “	3,602,180	1,876,736	3,366,506	1,588,991	3,301,923	2,059,739
Lead.....lb.	50,625,048	1,771,877	46,503,590	1,939,200	48,727,516	3,007,462
Copper..... “	45,009,699	6,121,319	56,918,405	9,835,500	65,379,364	17,784,494
Zinc..... “	7,866,467	346,125	12,982,440	1,460,524	37,168,980	4,043,985
Coal <sup>1</sup> .....ton	1,810,967	6,338,385	1,611,129	5,638,952	2,084,093	7,294,325
Coke <sup>1</sup> ..... “	234,577	1,407,462	245,871	1,475,226	267,725	1,606,350
Miscellaneous products.....	—	2,852,917	—	1,571,181	—	1,326,273
<b>Total.....</b>	<b>—</b>	<b>26,388,825</b>	<b>—</b>	<b>29,447,508</b>	<b>—</b>	<b>42,290,462</b>

<sup>1</sup>Long tons of 2,240 lb.



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## 65.—Quantity and Value of the World's Production of Gold and Silver for the Calendar Years 1914 and 1915.

(From the Annual Report of the Director of the United States Mint.)

Countries.	1914.				1915.			
	Gold.		Silver.		Gold.		Silver.	
	fine oz.	\$	fine oz.	\$	fine oz.	\$	fine oz.	\$
North America—								
Canada.....	773,178	15,933,007	28,449,821	15,736,165	918,056	18,977,901	26,625,960	13,816,743
United States.....	4,572,976	91,531,782	72,455,106	40,076,365	4,887,604	101,035,700	74,961,677	38,898,801
Mexico.....	231,628	4,788,175	27,546,752	15,236,659	317,305	6,559,275	39,570,151	20,533,743
Total.....	5,577,782	115,302,964	128,451,673	71,049,189	6,122,965	126,572,876	141,157,186	73,249,287
Central American States—	115,771	2,393,190	2,754,868	1,523,773	143,687	2,970,271	2,920,496	1,515,504
South America—								
Bolivia and Chile....	9,809	202,770	789,685	436,791	39,397	814,418	3,870,065	2,008,254
Brazil.....	103,513	2,139,803	76,685	42,416	117,286	2,424,515	21,523	11,169
Colombia.....	226,327	4,678,587	351,271	194,295	263,796	5,453,148	351,271	182,281
Ecuador.....	16,779	346,853	16,726	9,251	26,397	545,674	24,655	12,794
Peru.....	49,445	1,022,125	9,214,190	5,096,553	53,691	1,109,891	9,419,950	4,888,200
Uruguay.....	739	15,276	—	—	573	11,836	—	—
Guiana—								
British.....	54,495	1,126,500	—	—	44,693	923,892	—	—
Dutch.....	24,351	503,400	—	—	21,723	449,054	—	—
French.....	94,805	1,959,793	—	—	94,805 <sup>1</sup>	1,959,793	—	—
Venezuela.....	29,644	612,796	—	—	29,644	612,796	—	—
Total.....	609,907	12,607,903	10,448,557	5,779,306	692,005	14,305,017	13,687,464	7,102,698
Europe—								
Austria-Hungary....	9,711	200,744	1,572,746	869,917	9,711 <sup>1</sup>	200,744	1,572,746	816,129
France.....	67,725	1,400,000	—	—	67,725	1,400,000	—	—
Great Britain.....	979	20,238	135,458	74,925	932	19,266	96,450	50,050
Greece.....	—	—	591,464	327,150	—	—	591,464	306,922
Italy.....	1,555	32,145	510,865	282,293	111	2,295	474,525	246,241
Norway.....	—	—	440,917	243,880	—	—	440,917	228,801
Portugal.....	113	2,836	205,824	113,845	32	661	2,068	1,068
Russia.....	1,382,867	28,586,392	—	—	1,382,867 <sup>1</sup>	28,586,392	—	—
Servia.....	5,611	116,000	12,014	6,645	—	—	—	—
Spain.....	—	—	4,228,593	2,338,919	—	—	4,565,396	2,369,075
Sweden.....	2,627	54,304	33,511	18,536	1,090	22,532	24,241	12,579
Turkey.....	23	475	1,509,133	834,732	23 <sup>1</sup>	475	1,509,133	783,119
Total.....	1,471,211	30,412,634	9,240,025	5,110,842	1,462,491	30,232,365	9,276,936	4,813,984
Australia.....	2,054,924	42,479,040	2,973,915	1,644,933	1,948,520	40,279,473	3,338,214	1,732,266
New Zealand.....	227,954	4,712,220	599,162	331,408	422,825	8,740,567	937,511	496,887
British New Guinea....	18,274 <sup>2</sup>	377,757	—	—	18,274 <sup>2</sup>	377,757	—	—
Total.....	2,301,152	47,569,023	3,573,077	1,976,341	2,389,619	49,397,797	4,295,755	2,229,153
Asia—								
British India.....	550,432	11,378,400	236,440	130,779	557,399	11,522,457	284,875	147,827
China.....	176,999 <sup>2</sup>	3,658,900	—	—	135,677	2,804,692	18,230	9,460
Chosen.....	160,115	3,309,870	16,864	9,328	180,897	3,739,477	21,876	11,352
East Indies—								
British.....	216,761	4,480,853	—	—	212,776	4,398,476	—	—
Dutch.....	—	—	—	—	—	—	—	—
Federated Malay States.....	13,020	269,147	—	—	17,005	351,524	—	—
Formosa.....	46,092	952,806	51,080	28,253	55,293	1,143,017	46,976	24,377
Indo-China.....	3,213	66,419	1,767	977	2,112	43,659	1,056	548
Japan.....	226,364	4,679,358	4,836,228	2,675,014	260,544	5,385,917	5,079,552	2,635,851
Total.....	1,392,996	28,795,753	5,142,379	2,844,351	1,421,703	29,389,219	5,452,565	2,829,445
Africa—								
Belgian Congo.....	49,787	1,029,189	4,770	2,639	49,787 <sup>1</sup>	1,029,189	4,770	2,475
Egypt.....	6,136	126,842	1,223	676	7,010	144,910	1,657	860
French East Africa....	2,100	43,414	—	—	2,100	43,414	—	—
Madagascar.....	56,553	1,169,055	—	—	56,553 <sup>1</sup>	1,169,055	—	—
Rhodesia.....	854,481	17,663,886	150,794	83,467	915,029	18,915,324	185,233	96,121
Transvaal, Cape Colony and Natal.....	8,395,964	173,559,940	901,763	498,783	9,096,106	188,033,156	996,379	517,041
Sierra Leone.....	406,576	8,404,670	—	—	401,733	8,304,551	—	—
Total.....	9,771,597	201,996,796	1,058,550	585,505	10,528,318	217,639,599	1,188,039	616,497
Total for World....	21,240,416	439,078,263	160,669,129	88,869,307	22,760,788	470,607,144	177,978,435	92,356,568

<sup>1</sup>1914 figures. <sup>2</sup>1913 figures.

NOTE.—For 1914 the average value per fine oz. of silver is \$0.55312, and for 1915 \$0.51892.

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## 66.—Imports into Canada of Portland Cement, 1898-1916.

Fiscal Year.	Quantity.	Value.	Duty paid.	Fiscal Year.	Quantity.	Value.	Duty paid.
	Cwt.	\$	\$		Cwt.	\$	\$
1898.....	1,073,058	355,264	121,969	1908.....	2,427,381	852,041	259,549
1899.....	1,300,424	467,994	147,146	1909.....	1,460,850	475,676	159,077
1900.....	1,301,361	498,607	147,067	1910.....	490,809	158,487	47,984
1901.....	1,612,432	654,595	179,550	1911.....	1,283,121	494,081	138,969
1902.....	1,971,616	833,657	233,754	1912.....	2,592,025	936,425	292,914
1903.....	2,316,853	868,131	271,004	1913.....	4,958,814	1,955,177	597,727
1904.....	2,476,388	995,017	290,778	1914.....	709,014	332,564	69,658
1905.....	3,228,394	1,234,649	384,866	1915.....	287,402	123,613	26,034
1906.....	2,848,582	963,839	328,342	1916.....	94,136	37,048	9,382
1907 <sup>1</sup> .....	1,551,493	523,120	162,250				

<sup>1</sup>Nine months.

## 67.—Imports into Canada of Anthracite and Bituminous Coal for home consumption during the fiscal years 1901-1916.

Fiscal Year.	Anthracite, Free of Duty.		Bituminous Coal, Dutiable.	
	Ton.	\$	Ton.	\$
1901.....	1,933,283	7,923,950	2,516,392	4,956,025
1902.....	1,652,451	7,021,939	3,047,392	5,712,058
1903.....	1,456,712	7,028,664	3,511,421	7,776,717
1904.....	2,275,018	10,461,223	4,053,900	9,108,208
1905.....	2,604,137	12,093,371	4,176,274	8,022,896
1906.....	2,200,863	10,304,303	4,495,550	8,360,349
1907 <sup>1</sup> .....	2,014,846	9,487,574	3,807,604	7,491,045
1908.....	3,091,159	14,199,609	7,640,121	14,843,789
1909.....	3,059,663	14,034,020	6,763,352	13,151,449
1910.....	3,152,851	14,456,315	7,017,271	13,070,363
1911.....	3,465,774	15,750,340	7,745,571	14,597,268
1912.....	4,118,379	19,306,639	10,500,662	20,333,268
1913.....	4,237,310	20,399,279	11,060,910	20,447,587
1914.....	4,385,799	20,734,126	13,754,244	26,140,676
1915.....	4,383,407	20,927,539	9,124,499	16,135,920
1916.....	4,429,143	20,460,571	9,631,101	10,219,206

NOTE.—Anthracite coal dust is included under Anthracite coal. For records of previous years, see Year Book, 1911, page 420. <sup>1</sup>Nine months.

## 68.—Exports of Coal, the produce of Canada, 1903-1916.

Fiscal Year.	Quantity.	Value.	Fiscal Year.	Quantity.	Value.
	Tons.	\$		Tons.	\$
1903.....	1,979,951	5,542,434	1910.....	1,826,339	5,013,221
1904.....	1,646,505	4,346,660	1911.....	2,315,171	6,014,095
1905.....	1,615,322	3,930,802	1912.....	1,494,756	4,338,128
1906.....	1,820,511	4,643,198	1913.....	2,055,993	5,555,099
1907 (9 mos.).....	1,285,346	3,346,402	1914.....	1,498,820	3,703,765
1908.....	1,877,258	4,810,284	1915.....	1,512,487	4,466,253
1909.....	1,613,892	4,505,221	1916.....	1,971,124	6,032,765

## PRODUCTION.

## MANUFACTURES.

**General Results of Census of 1916.**—In 1917 the Census and Statistics Office published the Report on the Postal Census of Manufactures, which was taken in 1916 for the calendar year 1915. According to this report, the number of industrial establishments in operation in 1915 was 21,306, representing an invested capital of \$1,994,103,272, employing 52,683 persons on salaries and 462,200 persons on wages, and producing goods to the value of \$1,407,137,140 from raw materials valued at \$802,135,862. Table 69 compares the industrial activities of the two years 1905 and 1915, the statistics in this table covering all establishments irrespective of the number of employees. It will be observed that the capital had increased during the ten years from \$846,585,023 in 1905 to \$1,994,103,272 in 1915, the increase of \$1,147,518,249, representing a percentage ratio of 135.54. In the same period the value of products rose from \$718,352,603 in 1905 to \$1,407,137,140 in 1915, an increase of \$688,784,537, or 95.88 p.c. Table 70 compares the two years 1910 and 1915 for establishments employing five hands and over, the census of manufactures in 1911 having been restricted to establishments employing five hands and over, except for flour and grist mills, butter and cheese factories, brick and tile yards, lime kilns, electric light plants, etc. From this table it will be noted that the number of establishments decreased during the five years by 3,625, or 18.86 per cent. Capital increased, however, from \$1,247,583,609 to \$1,958,705,230, the increase amounting to \$711,121,621, or 57 p.c. The value of products rose from \$1,165,975,639 in 1910 to \$1,381,547,225 in 1915, an increase of \$215,571,586, or 18.49 p.c. The decrease in the number of establishments in operation in 1915 as compared with 1910 is chiefly a reflection of the falling off in construction enterprises which occurred in 1913 and was continued after the outbreak of the war. The number of sawmills and shingle mills in operation decreased from 3,499 in 1910 to 1,887 in 1915. Sash and door and planing mills decreased from 859 to 661, boat and canoe building establishments decreased from 126 to eighty-three, and brick and tile yards from 399 to 230. The number of small flour and grist mills, which are associated with saw-milling, fell from 1,141 to 644. Other decreases were in manufactures of agricultural implements, from seventy-seven to fifty-six, and in woollen mills from eighty-seven to fifty-two. Table 71 gives the principal statistics of manufactures, by provinces, for the years 1900, 1905, 1910 and 1915, for establishments in each case employing five hands and over. Table 72 gives for all establishments, irrespective of the number of hands employed, the statistics of the census of manufactures for 1915, including the number of establishments, the amount of capital, the number of employees on wages, the amount of wages paid, the cost of materials and the value of products by fifteen groups of industries and by detailed kinds of industries. The number of employees on salaries and the amount of salaries paid is not given in this table; but the summary for all Canada is shown in Table 69.

## MANUFACTURES.

**War Trade in Manufactures, 1915.**—In view of the extent to which the manufacturing industry in Canada has been affected by war conditions, each manufacturer was asked, in making his return for 1915, to report on such products of his establishment as he had reason to believe were destined for war purposes, whether supplied directly or indirectly. The results are summarized in Table 73, which includes only such goods as were actually delivered during the calendar year 1915.

## 69.—Statistics of Manufactures of Canada, 1905 and 1915.

(All establishments irrespective of number of employees).

Items.	1905.	1915.	Increase.	
			Amount.	Per cent.
	\$	\$	\$	
Establishments.....NO.	15,796	21,306	5,510	34.88
Capital..... \$	846,585,023	1,994,103,272	1,147,518,249	135.54
Employees on salaries....NO.	36,496	52,683	16,187	44.35
Salaries..... \$	30,724,086	60,308,293	29,584,207	96.29
Employees on wages.....NO.	356,034	462,200	106,166	29.82
Wages..... \$	134,375,925	229,456,210	95,080,285	70.76
Value of products..... \$	718,352,603	1,407,137,140	688,784,537	95.88

## 70.—Statistics of Manufactures of Canada, 1910 and 1915.

(Establishments employing five hands and over.)

Items.	1910.	1915.	Increase or Decrease.	
			Amount.	Per cent.
Establishments.....No.	19,218	15,593	-3,625	-18.86
Capital..... \$	1,247,583,609	1,958,705,230	711,121,621	57.00
Salaries and wages..... \$	241,008,416	283,311,505	42,303,089	17.55
Cost of materials..... \$	601,509,018	791,943,433	190,434,415	31.66
Value of products..... \$	1,165,975,639	1,381,547,225	215,571,586	18.49



## P R O D U C T I O N .

## 71.—Statistics of Manufactures by Provinces, 1900, 1905, 1910 and 1915.

(Establishments employing five hands and over.)

Provinces.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and wages.	Raw and partly mfd. materials.	Value of products.
1900.	No.	\$	No.	\$	\$	\$
Canada.....	14,650	446,916,487	339,173	113,249,350	266,527,858	481,053,375
P. E. Island....	334	2,081,766	3,804	445,998	1,319,058	2,326,708
Nova Scotia....	1,188	34,586,416	23,284	5,613,571	13,161,077	23,592,513
N. Brunswick....	919	20,741,170	22,158	5,748,990	10,814,014	20,972,470
Quebec.....	4,845	142,403,407	110,329	36,550,655	86,679,779	158,287,994
Ontario.....	6,543	214,972,275	161,757	56,548,286	138,230,400	241,533,486
Manitoba.....	324	7,539,691	5,219	2,419,549	7,955,504	12,927,439
Alberta and Saskatch'w'n	105	1,689,870	1,168	465,763	1,121,342	1,964,987
Br. Columbia..	392	22,901,892	11,454	5,456,538	7,246,684	19,447,778
1905.						
Canada.....	12,547	833,916,155	383,920	162,155,578	—	706,446,578
P.E. Island....	223	1,553,916	2,770	409,915	—	1,696,459
Nova Scotia....	720	74,599,538	23,754	9,139,371	—	31,987,449
N. Brunswick....	531	26,461,664	19,170	6,497,161	—	21,833,564
Quebec.....	4,115	251,730,182	116,748	46,514,619	—	216,478,496
Ontario.....	6,163	390,875,465	184,526	80,729,889	—	361,372,741
Manitoba.....	280	27,070,665	10,113	5,800,707	—	27,857,396
Saskatchewan	55	3,820,975	1,376	681,381	—	2,443,801
Alberta.....	97	5,400,371	1,983	1,129,272	—	4,979,932
Br. Columbia..	363	52,403,379	23,480	11,253,263	—	37,796,740
1910.						
Canada.....	19,218	1,247,583,609	515,203	241,008,416	601,509,018	1,165,975,639
P.E. Island....	442	2,013,365	3,762	531,017	1,816,804	3,136,470
Nova Scotia....	1,480	79,596,341	28,795	10,628,955	26,058,315	52,706,184
N. Brunswick....	1,158	36,125,012	24,755	8,314,212	18,516,096	35,422,302
Quebec.....	6,584	326,946,925	158,207	69,432,967	184,374,053	350,901,656
Ontario.....	8,001	595,394,608	238,817	117,645,784	297,580,125	579,810,225
Manitoba.....	439	47,941,540	17,325	10,912,866	30,499,829	53,673,609
Saskatchewan	173	7,019,951	3,250	1,936,284	2,747,266	6,332,132
Alberta.....	290	29,518,346	6,980	4,365,661	9,998,777	18,788,825
Br. Columbia..	651	123,027,521	33,312	17,240,670	29,917,753	65,204,236
1915.						
Canada.....	15,593	1,958,705,230	—	283,311,505	791,943,433	1,381,547,225
P.E. Island....	261	1,841,690	—	543,954	1,499,066	2,586,823
Nova Scotia....	781	125,754,562	—	17,175,818	36,194,004	69,345,819
N. Brunswick....	630	45,970,488	—	8,767,230	21,314,643	37,303,900
Quebec.....	5,743	530,312,464	—	80,324,171	213,754,115	381,203,999
Ontario.....	6,538	946,619,114	—	140,609,691	410,670,537	7,715,531,839
Manitoba.....	499	64,690,750	—	13,389,569	38,529,386	60,481,446
Saskatchewan	238	14,736,860	—	2,440,062	7,417,166	13,355,206
Alberta.....	282	41,198,897	—	4,791,281	20,699,967	29,416,221
Br. Columbia..	621	157,580,405	—	15,269,729	41,864,549	72,321,972

NOTE.—For 1915 the number of employees in establishments employing five hands and over has not been compiled.

## MANUFACTURES.

## 72.—Statistics of Manufactures, 1915.

(All establishments irrespective of number of employees.)

Groups and Kinds of Industries.	Estab- lish- ments	Capital.	Em- ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
1 Food pro- ducts.....	6,472	199,205,254	55,085	22,026,238	301,618,217	388,815,362
2 Textiles.....	26,71	126,490,509	68,624	27,044,812	81,429,429	144,686,605
3 Iron and steel products.....	851	195,877,015	53,678	27,267,716	59,207,670	120,422,420
4 Timber and lumber and re- manufactures	3,187	263,588,882	63,663	28,964,555	59,212,349	123,396,686
5 Leather and its finished products....	524	60,269,498	20,307	10,306,114	45,201,497	71,036,644
6 Paper and printing.....	1,306	138,544,786	30,817	18,780,569	29,324,906	74,038,398
7 Liquors and beverages...	341	52,283,857	4,376	2,961,993	10,129,252	34,859,927
8 Chemicals and allied products....	255	52,248,588	10,436	5,413,846	24,930,308	45,410,486
9 Clay, glass and stone products....	772	96,376,573	14,498	8,249,184	10,971,641	27,244,813
10 Metals and metal pro- ducts other than steel...	1,173	174,621,994	27,011	17,557,632	45,931,080	90,943,278
11 Tobacco and its manufac- tures.....	166	23,066,898	8,532	3,083,000	16,017,707	28,987,250
12 Vehicles for land trans- portation....	464	125,965,499	34,195	18,637,539	40,547,113	73,878,212
13 Vessels for water trans- portation....	103	12,331,341	5,261	2,467,074	3,035,857	8,419,648
14 Miscellaneous industries...	1,437	441,132,723	47,901	25,934,136	56,324,658	134,268,231
15 Hand trades.	1,584	32,099,855	17,816	10,761,802	18,254,178	40,729,180
<b>Totals.....</b>	<b>21,306</b>	<b>1,994,103,272</b>	<b>462,200</b>	<b>229,456,210</b>	<b>802,135,862</b>	<b>1,407,137,140</b>

## PRODUCTION.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em-ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>I. Food Products.</b>	<b>6,472</b>	<b>199,205,254</b>	<b>55,085</b>	<b>22,026,238</b>	<b>301,618,217</b>	<b>388,815,362</b>
Baking powder and flavouring extracts.....	25	1,328,020	340	159,232	882,310	1,757,187
Bread, biscuits and confectionery...	1,375	25,282,598	12,035	6,002,529	22,666,226	40,772,216
Butter and cheese	3,307	12,244,617	5,632	2,621,347	48,130,964	56,274,679
Chewing gum. ....	4	497,328	107	57,743	227,272	460,628
Cocoa and chocolate.....	13	2,451,292	887	300,247	1,920,351	3,112,294
Coffees and spices	27	3,810,406	458	258,247	3,568,263	5,408,525
Condensed milk...	13	1,786,325	321	232,912	2,749,157	3,725,668
Confectioners' supplies.....	3	248,603	53	42,607	14,053	136,700
Dairy products...	9	1,667,039	544	378,657	1,516,298	2,216,214
Evaporated fruits and vegetables.	46	836,645	1,397	169,461	792,582	1,223,034
Fish, preserved...	775	14,937,375	15,485	2,602,528	8,766,499	15,761,586
Flour and grist-mill products...	644	57,428,014	5,701	3,308,400	92,895,753	114,483,924
Foods, stock.....	12	469,987	71	40,357	206,616	397,391
Fruit and vegetable canning...	80	4,580,855	1,453	429,766	2,283,880	3,794,922
Jams and jellies...	13	778,526	196	77,244	520,006	946,886
Macaroni.....	6	316,137	115	38,184	215,357	401,866
Slaughtering and meat packing...	59	32,371,658	6,484	3,256,773	65,192,477	78,431,125
Slaughtering, not including meat packing.....	4	4,700,456	1,062	481,807	14,920,821	18,358,606
Sugar, refined....	9	30,925,525	2,276	1,320,941	32,110,686	37,752,235
Tallow, refined....	4	48,541	11	7,494	34,833	63,068
Vinegar and pickles.....	33	1,638,108	332	157,518	715,283	1,564,519
All other industries.....	11	857,199	125	82,244	1,288,530	1,772,089
<b>II. Textiles.</b>	<b>2,761</b>	<b>126,490,509</b>	<b>68,624</b>	<b>27,044,812</b>	<b>81,429,429</b>	<b>144,686,605</b>
Awnings, tents and sails.....	30	1,914,623	664	230,015	1,387,028	1,883,221
Bags, cotton.....	10	3,847,566	810	306,669	6,002,797	7,252,145
Batting.....	3	360,174	100	33,288	181,198	284,459
Carpets.....	5	2,852,270	812	295,792	963,929	1,463,544
Clothing, men's, custom.....	1,048	4,649,489	4,667	1,973,845	3,217,191	7,022,009

## MANUFACTURES.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em- ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>II. Textiles—con.</b>						
Clothing, men's, factory.....	120	14,648,993	9,390	4,461,285	12,173,928	22,768,468
Clothing, wo- men's, custom..	853	4,839,352	4,379	1,651,249	3,452,183	7,524,565
Clothing, wo- men's, factory..	100	9,537,666	8,998	4,496,163	10,526,094	18,564,782
Cordage, rope and twine.....	6	4,585,567	1,107	430,013	2,867,286	4,238,651
Cottons.....	20	28,261,052	13,192	4,753,432	10,640,317	20,512,909
Embroidery.....	3	24,720	23	11,064	11,613	36,927
Flax, dressed....	11	1,327,879	635	234,522	496,275	1,116,002
Furnishing goods, men's...	70	6,288,350	4,549	1,520,910	5,352,296	9,058,173
Hats, caps and furs.....	159	6,714,461	3,114	1,265,088	4,084,021	7,559,257
Hosiery and knit goods.....	73	18,108,735	8,759	2,718,617	9,153,990	16,096,800
Laces and braids.	7	350,046	217	59,506	185,858	380,464
Linen.....	3	422,943	130	47,766	122,192	268,015
Mats and rugs....	7	134,054	79	32,682	62,440	125,007
Neckwear.....	9	639,877	410	153,012	516,681	940,168
Quilted goods....	3	187,353	92	33,421	48,177	177,293
Regalia and so- ciety emblems..	4	50,532	23	15,628	24,581	66,266
Shoddy.....	9	1,177,667	189	85,882	727,683	1,307,228
Silk and silk goods.....	4	1,487,913	682	219,461	495,036	1,277,044
Textiles, dyeing and finishing...	3	89,316	55	23,251	29,116	85,231
Thread.....	4	1,779,863	424	138,935	648,536	1,869,926
Waterproof cloth- ing.....	8	724,421	268	113,700	309,466	582,039
Wool carding and fulling.....	21	82,723	62	13,971	44,439	81,634
Woollen goods....	52	8,479,492	3,879	1,398,643	5,315,648	8,745,868
Woollen yarns ...	14	2,181,899	708	228,761	1,916,088	2,465,796
Wool pulling.....	3	188,177	26	23,879	157,700	289,182
All other indus- tries.....	9	553,336	181	74,362	315,642	643,532
<b>III. Iron and Steel products..</b>	<b>851</b>	<b>195,877,015</b>	<b>53,678</b>	<b>27,267,716</b>	<b>59,207,670</b>	<b>120,422,420</b>
Axes and tools....	29	3,768,939	925	538,367	712,090	1,924,961
Boilers and en- gines.....	51	16,106,315	4,155	2,246,868	3,050,194	8,546,488
Bridges, iron and steel.....	13	18,171,878	3,712	1,627,612	5,088,472	9,611,553
Chains.....	5	942,585	661	156,136	151,829	760,910
Dies and moulds..	7	358,494	141	79,435	28,622	193,715
Foundry and ma- chine shop pro- ducts.....	536	68,914,734	19,985	10,093,232	14,387,898	36,736,288



## PRODUCTION.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments.	Capital.	Em- ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>III. Iron and Steel prod.—con.</b>						
Gas machines.....	7	906,292	136	93,748	142,975	414,448
Iron and steel prod-ucts.....	95	74,369,256	20,588	10,593,956	29,436,623	50,599,711
Safes and vaults..	4	296,364	30	19,428	16,510	58,092
Saws.....	13	1,595,937	264	187,058	299,107	729,109
Scales.....	9	901,751	303	162,426	477,330	855,959
Skates.....	6	49,674	29	16,130	7,805	41,923
Stamps and stencils.....	17	180,720	110	65,544	34,111	158,460
Wire.....	25	3,810,924	979	505,603	2,028,157	3,510,494
Wire fencing.....	17	2,175,458	353	255,936	2,048,626	3,022,615
All other indus-tries.....	17	3,327,694	1,307	626,237	1,297,321	3,257,694
<b>IV. Timber and Lumber and their re-manu-factures.</b>	<b>3,187</b>	<b>263,588,882</b>	<b>63,663</b>	<b>28,964,555</b>	<b>59,212,349</b>	<b>123,396,686</b>
Artificial limbs and trusses.....	9	97,402	50	32,171	33,918	112,401
Baskets.....	19	253,695	220	109,944	110,405	313,830
Billiard tables and materials...	5	567,025	65	39,509	123,365	255,011
Boxes, cigar.....	6	531,536	302	97,302	244,570	918,276
Boxes, wooden...	85	4,336,427	2,158	892,812	2,126,479	3,949,389
Coffins and cas-kets.....	11	1,864,002	419	220,302	432,453	1,073,734
Cooperage.....	117	2,522,888	1,129	480,737	1,076,210	1,989,564
Corks.....	11	1,653,749	152	82,513	186,509	365,691
Furniture and up-holstered goods	175	18,067,929	6,905	3,113,168	3,955,786	9,765,339
Hay presses.....	3	13,350	19	4,329	61,255	80,500
Lasts and pegs...	8	646,815	210	102,774	60,011	250,823
Log products.....	1,887	144,758,399	34,964	15,586,915	33,365,810	68,815,472
Lumber products.	661	32,075,883	9,272	4,242,627	9,176,512	18,370,604
Matches.....	3	508,599	241	79,793	150,045	413,144
Picture frames...	25	1,132,606	517	240,270	337,556	831,652
Pumps and wind-mills.....	36	2,328,237	551	289,271	363,888	1,223,710
Refrigerators.....	10	468,745	138	81,330	131,541	326,639
Shooks, box.....	8	791,001	482	211,725	406,479	935,387
Show cases.....	14	625,590	233	114,258	185,346	438,272
Wickerware.....	8	286,508	208	92,579	96,611	301,651
Wooden piping....	3	293,390	30	8,090	45,429	76,476
Woodpulp, chem-ical and mech-anical.....	32	47,626,237	4,456	2,412,037	5,821,997	10,952,466
Woodworking and turning.....	41	1,481,458	719	326,432	554,680	1,254,923
All other indus-tries.....	10	657,411	220	103,667	165,494	381,732

## MANUFACTURES.

72.—Statistics of Manufactures, 1915.—con.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em-ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>V. Leather and its finished products.</b>	<b>524</b>	<b>60,269,498</b>	<b>20,307</b>	<b>10,306,114</b>	<b>45,201,497</b>	<b>71,036,644</b>
Belting and hose, leather.....	7	1,393,619	151	81,742	1,027,763	1,717,702
Boots and shoes..	146	30,881,172	14,290	6,814,772	18,980,004	34,064,696
Boot and shoe re-pairs.....	127	153,284	196	99,429	84,405	328,303
Boot and shoe sup-plies.....	8	184,116	105	35,166	107,520	185,868
Harness and sad-dlery.....	102	5,747,234	1,431	1,115,039	5,595,030	8,739,278
Leather, tanned, curried and fin-ished.....	106	19,688,281	3,293	1,754,871	18,123,623	23,654,491
Leather goods....	25	2,004,030	775	376,634	1,187,755	2,179,035
Whips.....	3	217,762	66	28,461	95,347	167,271
<b>VI. Paper and printing.</b>	<b>1,306</b>	<b>138,544,786</b>	<b>30,817</b>	<b>18,780,569</b>	<b>29,324,906</b>	<b>74,038,398</b>
Boxes and bags, paper.....	71	7,153,077	2,861	958,339	2,672,839	5,350,667
Fly paper.....	4	39,429	12	5,955	35,958	87,118
Lithographing and engraving.....	60	4,150,424	1,868	1,192,838	1,064,707	3,578,443
Paper.....	48	86,110,566	10,099	6,337,838	15,149,987	29,395,535
Paper patterns....	5	221,476	98	46,807	102,132	504,281
Printing and book-binding.....	411	13,150,057	5,687	3,556,973	3,216,412	10,659,125
Printing and pub-lishing.....	646	21,340,992	8,314	5,725,190	5,153,819	19,156,534
Stationery goods..	38	3,596,630	1,208	596,983	1,135,533	3,306,545
Stereotyping and electrotyping...	11	231,161	108	81,387	50,132	252,634
Wall paper.....	3	1,112,854	264	127,561	245,717	648,099
Waxed paper.....	3	166,813	57	26,583	117,125	209,525
All other indus-tries.....	6	1,271,307	241	124,115	380,545	889,892
<b>VII. Liquors and beverages.</b>	<b>341</b>	<b>52,283,857</b>	<b>4,376</b>	<b>2,961,993</b>	<b>10,129,252</b>	<b>34,859,927</b>
Aerated and min-eral waters.....	221	4,058,962	1,092	644,218	958,869	2,806,942
Liquors, distilled.	11	15,802,709	835	395,509	1,671,665	14,692,952
Liquors, malt....	94	31,062,069	2,332	1,749,284	6,557,636	15,795,901
Liquors, vinous...	12	844,867	31	24,863	105,313	268,623
Malt.....	3	515,250	86	148,119	835,769	1,295,509
<b>VIII. Chemicals and allied prod-ucts.</b>	<b>255</b>	<b>52,248,588</b>	<b>10,436</b>	<b>5,413,846</b>	<b>24,930,308</b>	<b>45,410,486</b>
Ammonia.....	3	314,527	26	14,971	169,634	221,708
Drugs.....	33	7,859,124	1,324	679,610	3,117,385	5,416,311
Explosives.....	9	10,494,301	4,010	1,966,998	4,139,994	10,306,605

## PRODUCTION.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em-ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>VIII. Chemicals and allied products—con.</b>						
Fertilizers.....	9	1,655,426	173	88,285	535,466	1,016,140
Oils.....	18	10,044,874	1,549	897,572	7,536,127	10,777,667
Oxygen gas.....	3	369,110	32	17,695	29,658	109,183
Paints and var-nishes.....	40	9,301,005	835	497,967	4,769,112	8,373,746
Patent medicines.	106	4,314,859	1,081	600,180	1,848,420	4,085,136
Salt.....	11	2,028,633	349	206,969	545,447	1,078,183
Starch.....	10	2,062,596	532	216,523	1,839,430	2,602,584
All other indust-ries.....	13	3,804,133	525	227,076	399,635	1,423,223
<b>IX. Clay, glass and stone pro-ducts.</b>	<b>772</b>	<b>96,376,573</b>	<b>14,498</b>	<b>8,249,184</b>	<b>10,971,641</b>	<b>27,244,813</b>
Abrasive goods...	10	824,595	248	79,922	226,004	558,099
Brick, tile and pottery.....	230	16,426,585	2,558	1,110,662	652,388	2,931,575
Cement blocks and tiles.....	119	4,264,372	2,378	1,622,102	1,621,607	3,902,313
Cement, Portland	17	43,122,353	1,655	1,112,310	4,072,823	7,773,993
Glass.....	9	10,713,646	2,855	1,550,167	1,656,190	4,192,169
Glass, stained, cut and ornamental	16	348,538	216	114,322	94,887	400,314
Lime.....	51	2,481,304	663	306,358	270,064	809,326
Mirrors and plate glass.....	16	1,761,968	276	202,842	586,934	1,095,985
Monuments and tombstones....	171	2,463,014	742	487,761	670,771	1,720,804
Sewer pipe.....	4	1,739,991	360	195,245	136,244	602,634
Stone, artificial...	15	209,024	81	36,736	26,813	92,590
Statuary.....	3	101,811	37	27,919	9,033	60,744
Stone, cut.....	96	9,450,778	1,939	1,135,795	566,522	2,568,491
Wall plaster.....	3	503,199	35	20,564	28,257	79,830
All other indust-ries.....	12	1,965,395	455	246,479	353,104	455,946
<b>X. Metals and metal products other than iron and steel.</b>	<b>1,173</b>	<b>174,621,994</b>	<b>27,011</b>	<b>17,557,632</b>	<b>45,931,080</b>	<b>90,943,278</b>
Aluminium.....	4	5,262,502	587	375,265	1,690,657	4,071,406
Babbitt metal....	7	349,917	80	35,272	971,851	1,187,551
Brass castings....	50	6,184,426	1,884	998,205	4,748,823	7,787,302
Brass and iron beds.....	4	318,504	116	39,963	69,765	202,103
Jewellery and re-pairs.....	86	2,975,474	1,301	1,267,033	868,820	2,212,859

## MANUFACTURES.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments.	Capital	Em-ployees on wages.	Wages paid.	Cost of materials.	Value of products
	No.	\$	No.	\$	\$	\$
<b>X. Metals and metal products other than iron and steel.—con.</b>						
Lamps and lanterns.....	8	923,003	459	187,205	602,528	1,050,867
Lightning rods...	3	49,549	7	4,432	55,257	83,227
Metallic roofing and flooring....	14	3,535,992	825	431,094	2,359,290	3,431,226
Plumbers' supplies	17	2,964,974	847	432,105	1,384,436	2,268,858
Plumbing and tinsmithing....	933	14,115,269	4,977	2,815,692	5,935,350	13,052,304
Silversmithing....	17	1,612,034	440	255,504	358,091	977,676
Smelting.....	17	134,164,510	15,139	10,497,858	25,706,190	52,782,156
All other industries.....	13	2,165,840	349	218,004	1,180,022	1,835,743
<b>XI. Tobacco and its manufactures</b>	<b>166</b>	<b>23,066,898</b>	<b>8,532</b>	<b>3,083,000</b>	<b>16,017,707</b>	<b>28,987,250</b>
Tobacco, chewing, smoking and snuff.....	30	6,422,029	2,080	709,567	5,117,330	8,960,919
Tobacco, cigars and cigarettes...	136	16,644,869	6,452	2,373,433	10,900,377	20,026,331
<b>XII. Vehicles for land transportation.....</b>	<b>464</b>	<b>125,965,499</b>	<b>34,195</b>	<b>18,637,539</b>	<b>40,547,113</b>	<b>73,878,212</b>
Automobiles.....	8	14,019,455	3,619	2,669,333	16,739,643	24,357,627
Bicycles.....	3	112,874	21	13,593	98,517	147,266
Car repairs.....	50	34,620,434	13,023	7,009,077	6,166,585	14,842,457
Carriages and wagons.....	364	13,777,562	2,644	1,556,419	3,939,909	7,670,928
Carriage and wagon materials...	26	3,186,538	598	343,591	958,537	1,908,012
Cars and car works.....	13	60,248,636	14,290	7,045,526	12,643,922	24,951,922
<b>XIII. Vessels for water transportation.....</b>	<b>103</b>	<b>12,331,341</b>	<b>5,261</b>	<b>2,467,074</b>	<b>3,035,857</b>	<b>8,419,648</b>
Boats and canoes.	83	870,573	377	196,571	234,726	639,147
Ships and ship repairs.....	20	11,460,768	4,884	2,270,503	2,801,131	7,780,501
<b>XIV. Miscellaneous Industries.</b>	<b>1,437</b>	<b>441,132,723</b>	<b>47,901</b>	<b>25,934,136</b>	<b>56,324,658</b>	<b>134,268,231</b>
Agricultural im-plements.....	56	59,529,091	6,737	3,125,066	5,983,236	13,372,506



## PRODUCTION.

## 72.—Statistics of Manufactures, 1915—con.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em-ployees on wages.	Wages. paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>XIV. Miscellan- eous Industries</b> —con.						
Ammunition.....	5	4,656,845	1,662	765,986	1,740,881	2,918,783
Artificial feathers and flowers.....	6	327,593	268	105,940	167,925	385,773
Artificial ice.....	6	723,157	98	72,466	27,136	420,600
Asbestos.....	9	2,434,116	767	342,303	379,544	1,410,661
Asphalt.....	16	1,415,720	734	348,333	538,344	1,134,673
Beekeepers' sup- plies.....	3	23,450	4	1,568	1,022	4,365
Blacking.....	25	765,310	163	84,492	540,415	999,460
Brooms and brushes.....	52	1,403,325	736	305,540	684,007	1,378,828
Buttons.....	15	607,627	548	204,059	146,907	453,836
Carbide of cal- cium.....	4	5,243,020	696	455,816	1,054,666	2,143,577
Coke.....	4	1,608,787	2,465	1,406,142	2,279,112	4,416,513
Conduits, electric	3	336,670	46	20,721	184,189	290,746
Corsets and sup- plies.....	11	1,812,754	1,045	296,179	980,527	2,129,985
Dental supplies...	9	271,481	37	17,955	407,365	545,245
Electrical appar- atus and sup- plies.....	47	38,519,220	7,083	3,660,184	9,137,197	18,108,24
Electric light and power.....	307	248,573,546	7,204	5,755,488	6,275,166	29,452,997
Elevators.....	6	3,433,631	690	415,868	233,865	1,441,079
Fancy goods.....	7	457,244	533	216,977	309,480	800,293
Flourpaste.....	3	16,000	8	2,365	7,911	14,872
Fringes, cords and tassels.....	4	108,558	137	37,406	44,995	129,774
Gas, lighting and heating.....	35	16,609,420	1,433	944,850	1,553,074	4,450,960
Gloves and mit- tens.....	38	1,759,110	1,098	333,404	1,089,230	1,899,092
Glue.....	5	897,033	233	130,182	369,661	624,728
Hairwork.....	14	627,773	130	64,308	153,648	286,228
Hay, baled.....	5	45,729	82	22,790	269,992	330,986
Inks.....	10	406,421	65	36,683	276,796	549,404
Jewellery cases...	3	35,008	36	12,077	9,996	26,488
Labels.....	4	241,258	156	43,579	56,615	138,653
Mattresses and spring beds.....	55	3,362,022	935	488,651	1,268,579	4,618,422
Mica, cut.....	3	123,256	529	44,533	42,948	81,105
Musical instru- ments.....	37	7,558,116	1,882	1,053,560	1,438,972	3,528,643
Musical instru- ment materials.	7	1,404,226	555	342,354	421,260	965,746
Optical goods.....	18	494,694	240	136,390	153,263	493,322
Patterns.....	12	52,666	55	37,365	10,042	83,143

## MANUFACTURES.

## 72.—Statistics of Manufactures, 1915—concluded.

Groups and Kinds of Industries.	Estab-lish-ments	Capital.	Em-ployees on wages.	Wages paid.	Cost of materials.	Value of products.
	No.	\$	No.	\$	\$	\$
<b>XIV. Miscel'neous Industries—con.</b>						
Photography.....	280	776,324	548	293,921	253,192	999,413
Plaster.....	13	3,017,797	949	469,607	268,618	1,030,393
Plaster and stucco	4	15,203	9	9,129	4,525	18,395
Printers' supplies	3	86,732	16	15,040	46,535	86,694
Pulleys.....	5	752,371	263	137,739	154,103	437,760
Railway supplies..	5	256,431	65	30,841	60,152	124,573
Roofing and roof- ing materials...	39	1,981,158	403	224,397	909,755	1,466,988
Rubber and elas- tic goods.....	15	12,851,791	3,248	1,717,114	7,061,076	14,393,181
Seed cleaning and preparing.....	10	1,168,319	235	82,720	2,166,482	2,636,327
Signs.....	59	307,733	255	147,526	138,758	510,701
Soap.....	26	5,042,065	663	342,176	4,095,033	6,445,939
Sporting goods...	8	351,599	114	38,427	131,871	237,242
Sweeping com- pounds.....	9	248,758	27	14,853	27,014	137,006
Umbrellas.....	6	231,921	102	38,261	192,561	354,361
Vacuum cleaners..	5	68,474	16	11,830	36,947	81,304
Washing com- pounds.....	8	113,346	46	22,332	63,080	127,563
Washing machines and wringers...	5	499,791	110	67,947	137,939	274,591
Wax candles.....	7	84,270	22	9,538	41,234	91,675
Weather-strips...	10	62,539	29	14,900	22,226	63,733
Window blinds and shades.....	3	545,151	135	46,270	344,608	568,912
Window fixtures..	4	99,345	58	31,374	26,344	93,573
All other indus- tries.....	69	6,687,728	1,498	836,614	1,904,589	4,058,180
<b>XV. Hand Trades.</b>	<b>1,584</b>	<b>32,099,855</b>	<b>17,816</b>	<b>10,761,802</b>	<b>18,254,178</b>	<b>40,729,180</b>
Automobile re- pairs and acces- sories.....	120	3,540,441	1,233	944,561	2,434,197	4,329,938
Bicycle repairs...	13	51,783	17	10,410	11,773	30,950
Blacksmithing...	611	1,821,735	901	487,938	351,836	1,437,172
Dyeing and clean- ing.....	133	3,809,730	3,534	1,564,820	662,345	3,986,670
Housebuilding...	556	14,195,043	8,775	5,555,955	13,586,473	26,436,163
Interior decora- tions.....	10	604,419	202	120,162	119,198	360,561
Lock and gun- smithing.....	26	7,251,810	2,693	1,783,296	854,331	3,264,265
Painting and glazing.....	115	824,894	461	294,660	234,025	883,461

## TRADE AND COMMERCE.

## 73.—War Trade in Manufactures, 1915.

Groups.	Value of war trade.	Groups.	Value of war trade.
	\$		\$
Food products.....	5,789,354	Metals and metal products other than iron and steel	9,837,013
Textiles.....	23,319,659	Tobacco and its manu- factures.....	127,686
Iron and steel products....	34,500,967	Vehicles for land trans- portation.....	16,955,562
Timber and lumber and their re-manufactures.....	3,491,792	Vessels for water trans- portation.....	2,471,489
Leather and its finished pro- ducts.....	13,159,261	Miscellaneous industries..	12,555,128
Paper and printing.....	63,853	Hand trades.....	2,524,346
Liquors and beverages.....	19,358	<b>Total.....</b>	<b>133,417,371</b>
Chemicals and allied pro- ducts.....	8,519,735		
Clay, glass and stone pro- ducts.....	82,168		

## VII.—TRADE AND COMMERCE.

Included in this section are tables showing the exports and imports of Canada in different categories and for varying periods. These are followed by grain statistics and statistics relating to bounties, patents and copyrights, trade marks, etc.

**Import and Export Tables.**—Hitherto the trade tables of Canada have included imports in the two categories of (1) merchandise for home consumption and (2) total merchandise, the latter including goods not taken out of bond and which may be intended for export. The export tables have included (1) merchandise the produce of Canada and (2) merchandise of foreign origin. The distinction thus made is usually described by the terms "special" trade (consisting of imports for home consumption and exports the produce of the exporting country) and "general" trade (consisting of total imports and exports). In so far as the imports not taken out of bond and therefore not reckoned as intended for home consumption may be exported, there has been a certain amount of duplication in the figures representing the total or general trade, because the total exports have included the imports not intended for home consumption. In 1912 the Departmental Commission on Official Statistics recommended that the column of total imports in the Trade and Navigation Returns should be dispensed with on the ground that the column showing imports for home consumption was sufficient. The Department of Customs has now decided to publish

## AGGREGATE EXTERNAL TRADE.

only the imports for home consumption, and as a consequence the tables of imports and exports in this issue of the Year Book have been remodelled. Table 1 presents a general view of the aggregate trade of Canada from 1868 to 1917. In this table the imports include only merchandise entered for home consumption, the exports are distinguished as between Canadian and foreign produce, and the aggregate trade consists of the imports for home consumption and the total exports. The values of coin and bullion, the movement of which during the past three years represents fiduciary transactions rather than trading exchanges, have been eliminated from the totals of imports and exports and are recorded separately in Table 2. The duties collected on exports and imports are given in Table 3, and Table 4 shows the ratio of exports to imports and the per capita value of Canadian trade. From Table 4 it will be observed that the so-called "balance of trade" has been against Canada (i.e. the imports have exceeded the exports) for thirty-five years out of the fifty years since Confederation, and that this adverse balance reached its highest ratio in 1913 just before the war. Since this date the adverse ratio has receded, and in 1915 for the first time since 1903 the balance became favourable to Canada, the exports exceeding imports by a little over one per cent. For 1916 the ratio rose to 153.46 per cent. and for 1917 it was 139.50 per cent. The value of the total trade per capita is shown by the same table to have risen from \$35.53 in 1868 to \$242.14 in 1917.

**Aggregate External Trade.**—As shown by Table 1, the aggregate external trade of Canada for the year ended March 31, 1917, was of the value of \$2,024,542,003, as compared with \$1,287,117,229 in 1915-16 and \$916,888,821 in 1914-15. The increase in 1916-17, as compared with 1915-16, is \$737,424,774, or 57.29 p.c., and as compared with 1914-15 it is \$1,107,653,182, or 121 p.c. A considerable proportion of the increased value of Canadian exports during the last three years has been due directly to the war, large increases being shown for grain, hay, boots and shoes, cartridges, explosives and fulminates, metals, minerals, iron, steel and manufactures thereof. In 1916-17 the total trade of the Dominion with the United Kingdom was \$863,142,240, as compared with \$540,485,602 in 1915-16. With the United States it was \$954,797,837 in 1916-17, as compared with \$483,610,018 in 1915-16, while the trade with countries other than these two was \$206,601,926 in 1916-17, as compared with \$263,021,609 in 1915-16.

**Trade of Calendar Year 1916.**—For the calendar year 1916 the total value of Canadian trade with other countries amounted to \$1,995,508,688, exclusive of coin and bullion, as compared with \$1,104,036,186 in 1915, an increase of \$891,472,502, or 80.7 p.c. Exports in 1916 amounted to \$1,229,007,276, as compared with \$653,488,412 in 1915, and imports to \$766,501,412, as compared with \$450,547,774 in 1915. Trade with the United Kingdom reached a total value of \$821,714,082, as compared with \$435,851,194 in 1915. Exports to the United Kingdom in 1916 were \$718,723,567, as compared with \$361,486,588, and imports from the United Kingdom in 1916 were \$102,990,515, as compared with \$74,364,606. Trade with the United



## TRADE AND COMMERCE.

States reached the total value of \$862,033,042, as compared with \$521,306,567 in 1915. Exports to the United States were \$269,981,964, as compared with \$204,708,903 in 1915, and imports from the United States were \$592,051,078, as compared with \$316,597,664 in 1915.

**Trade Fluctuations by Quantities and Values.**—It is evident that values alone cannot give a true measurement of the increase or decrease of trade from year to year, because such increase or decrease depends upon the double factors of price and volume. The increase or decrease in the value of articles imported into and exported from Canada that may be due (a) to higher or lower prices and (b) larger or smaller quantities, as between the fiscal years 1915 and 1916, has been calculated in the Census and Statistics Office for a large number of separate articles as in Table 26. The principle of calculation followed is that of the British Board of Trade. For all articles of which quantities as well as values are recorded in the trade returns, it is easy to ascertain the difference due to each by direct calculation; but where values alone are recorded and not quantities, it is necessary to proceed by estimate. And the method adopted is to group such articles with the classes to which they properly belong and assume that the variation due to volume has been in the same proportion as other articles in the class for which quantities are given. Inasmuch as the articles for which only values are given are relatively few and unimportant, the results are not greatly influenced by the amount of estimation necessary. The table shows that in 1916 the total value of exports the produce of Canada (exclusive of coin and bullion) was \$741,610,000, as compared with \$409,420,000 in 1915. The increase of \$332,190,000 representing 81.1 p.c. in the year is made up of \$43,397,000, or 6.2 p.c., due to higher prices and of \$288,793,000, or 70.5 p.c., due to larger quantities. In the case of imports for home consumption, the total value in 1916 was \$507,817,000, as compared with \$455,445,000 in 1915, an increase of \$52,372,000, or 11.5 p.c. This increase is made up of \$28,180,000, or 5.9 p.c., due to higher prices and of \$24,192,000, or 5.3 p.c., due to larger quantities. The total trade (exports and imports) was of the value of \$1,249,427,000 in 1916, as compared with \$864,865,000 in 1915, an increase of \$384,562,000, or 44.5 p.c., which is made up of \$71,577,000, or 6.1 p.c., due to higher prices and of \$312,985,000, or 36.1 p.c., due to larger quantities. The table further shows the classes of produce that were affected by differences in price and volume. Of the exports, only fisheries show a reduction in price, and the quantities for all descriptions are higher. Of the imports, forest and mineral produce are less in value by reason of lower prices, and agricultural, fisheries and forest produce, as well as manufactures, are less owing to smaller quantities. The period covered by the table is for the fiscal year ended March 31, 1916, as compared with 1915.

## AGGREGATE EXTERNAL TRADE.

## 1.—Aggregate External Trade of Canada, 1868-1917.

Fiscal Year.	Imports of Merchandise entered for Home Consumption.			Exports of Merchandise.			Aggregate-Trade (Im-ports for Home Consumption and Total Ex-ports).
	Dutiable.	Free.	Total.	Canadian Produce.	Foreign Produce.	Total.	
1868.....	\$43,655,696	\$23,434,463	\$67,090,159	\$48,504,899	\$4,196,821	\$52,701,720	\$119,791,879
1869.....	41,069,342	22,085,599	63,154,941	52,400,772	3,855,801	56,256,572	119,411,514
1870.....	45,127,422	21,774,652	66,902,074	59,043,590	6,527,622	65,571,212	132,473,286
1871.....	60,094,362	24,120,026	84,214,388	57,630,024	9,853,244	67,483,268	151,697,656
1872.....	68,276,157	36,679,210	104,955,367	65,831,083	12,798,182	78,629,265	183,584,632
1873.....	71,198,176	53,310,953	124,509,129	76,538,025	9,405,910	85,943,935	210,453,064
1874.....	76,232,530	46,948,357	123,180,887	76,741,997	10,614,096	87,356,093	210,536,980
1875.....	78,138,511	39,270,057	117,408,568	69,709,823	7,137,319	76,847,142	194,255,710
1876.....	60,238,297	32,274,810	92,513,107	72,491,437	7,234,961	79,726,398	172,239,505
1877.....	60,916,770	33,209,624	94,126,394	68,030,546	7,111,108	75,141,654	169,268,048
1878.....	59,773,039	30,622,812	90,395,851	67,989,800	11,164,878	79,154,678	169,550,529
1879.....	55,426,836	23,275,653	78,702,519	62,431,025	8,355,644	70,786,669	149,489,188
1880.....	54,182,967	15,717,575	69,900,542	72,899,697	13,240,006	86,139,703	156,040,245
1881.....	71,620,725	18,867,604	90,488,329	83,944,701	13,375,117	97,319,818	187,808,147
1882.....	85,757,433	25,387,751	111,145,184	94,137,657	7,628,453	101,766,110	212,911,294
1883.....	91,588,339	30,273,157	121,861,496	87,702,431	9,751,773	97,454,204	219,315,700
1884.....	80,010,498	25,962,480	105,972,978	79,833,098	9,389,106	89,222,204	195,195,182
1885.....	73,269,618	26,486,157	99,755,775	79,131,735	8,079,646	87,211,381	186,967,156
1886.....	70,658,819	25,333,318	95,992,137	77,756,704	7,438,079	85,194,783	181,186,920
1887.....	78,120,679	26,986,531	105,107,210	80,960,909	8,549,333	89,510,242	194,617,452
1888.....	69,645,824	31,025,804	100,671,628	81,382,072	8,803,394	90,185,466	190,857,094
1889.....	74,475,139	34,623,057	109,098,196	80,272,456	6,938,455	87,210,911	196,309,107
1890.....	77,106,286	34,576,287	111,682,573	85,257,586	9,051,781	94,309,367	205,991,940
1891.....	74,536,036	36,997,918	111,533,954	88,671,738	8,798,631	97,470,369	209,004,323
1892.....	69,160,737	45,999,676	115,160,413	99,032,466	13,121,791	112,154,257	227,314,670
1893.....	69,873,571	45,297,259	115,170,830	105,488,798	8,941,856	114,430,654	229,601,484
1894.....	62,779,182	46,291,729	109,070,911	103,851,764	11,833,805	115,685,569	224,756,480
1895.....	58,557,655	42,118,236	100,675,891	102,828,441	6,485,043	109,313,484	209,989,375
1896.....	67,239,759	38,121,402	105,361,161	109,707,805	6,606,738	116,314,543	221,675,704
1897.....	66,220,765	40,397,082	106,617,827	123,632,540	10,825,163	134,457,703	241,075,530
1898.....	74,625,088	51,682,074	126,307,162	144,548,662	14,980,883	159,529,545	285,836,707
1899.....	89,433,172	59,913,287	149,346,459	137,360,792	17,520,088	154,880,880	304,227,339
1900.....	104,346,795	68,160,083	172,506,878	168,972,301	14,265,254	183,237,555	355,744,433
1901.....	105,969,756	71,730,938	177,700,694	177,431,386	17,077,757	194,509,143	372,209,837
1902.....	118,657,496	77,822,694	196,480,190	196,019,763	13,951,101	209,970,864	406,451,054
1903.....	136,796,065	88,017,654	224,813,719	214,401,674	10,828,087	225,229,761	450,043,480
1904.....	148,099,676	94,680,443	243,580,019	198,414,439	12,641,239	211,055,678	454,645,697
1905.....	150,928,787	100,688,332	251,617,119	190,854,946	10,617,115	201,472,061	453,089,180
1906.....	173,046,109	110,236,095	283,282,204	235,483,956	11,173,846	246,657,802	529,940,006
1907 (9 months).....	152,065,529	97,672,345	249,737,874	190,545,303	11,541,927	202,087,230	451,825,107
1908.....	118,160,047	133,719,908	351,879,955	246,960,968	16,407,984	263,368,952	615,248,907
1909.....	175,014,160	113,203,355	288,217,515	242,603,584	17,318,782	259,922,366	548,139,881
1910.....	227,264,346	142,551,081	369,815,427	279,247,551	19,576,442	298,823,993	668,579,420
1911.....	282,723,812	169,021,296	451,745,108	274,316,553	15,683,657	290,000,210	741,745,318
1912.....	335,304,060	186,144,249	521,448,309	290,223,857	17,492,294	307,716,151	820,164,460
1913.....	441,606,885	228,482,181	670,089,066	355,756,600	21,313,755	377,070,355	1,047,157,421
1914.....	410,258,744	208,198,400	618,457,144	431,588,439	23,848,785	455,437,224	1,073,894,368
1915.....	279,792,195	175,654,117	455,446,312	409,418,836	52,023,673	461,442,509	916,888,821
1916.....	289,366,527	218,450,632	507,817,159	741,610,638	37,689,432	779,300,070	1,287,117,229
1917.....	461,708,206	383,622,097	845,330,303	1,151,375,708	27,835,332	1,179,211,100	2,024,542,003

## TRADE AND COMMERCE.

## 2.—Movement of Coin and Bullion, 1868-1917.

Year.	Total Imports.	Exports.			Total Imports and Exports of Coin and Bullion.
		Canadian.	Foreign.	Total.	
	\$	\$	\$	\$	\$
1868. ....	4,895,147	4,866,168	—	4,866,168	9,761,314
1869. ....	4,247,229	4,218,208	—	4,218,208	8,465,437
1870. ....	4,335,529	8,002,278	—	8,002,278	12,337,807
1871. ....	2,733,094	6,690,350	—	6,690,350	9,423,444
1872. ....	2,753,749	4,010,398	—	4,010,398	6,764,147
1873. ....	3,005,465	3,845,987	—	3,845,987	6,851,452
1874. ....	4,223,282	1,995,835	—	1,995,835	6,219,117
1875. ....	2,210,089	1,039,837	—	1,039,837	3,249,926
1876. ....	2,220,111	1,240,037	—	1,240,037	3,460,148
1877. ....	2,174,089	—	733,739	733,739	2,907,828
1878. ....	803,726	—	168,989	168,989	972,715
1879. ....	1,639,089	—	704,586	704,586	2,343,675
1880. ....	1,881,807	—	1,771,755	1,771,755	3,653,562
1881. ....	1,123,275	—	971,005	971,005	2,094,280
1882. ....	1,503,743	—	371,093	371,093	1,874,836
1883. ....	1,275,523	—	631,600	631,600	1,907,123
1884. ....	2,207,666	—	2,184,292	2,184,292	4,391,958
1885. ....	2,954,244	—	2,026,980	2,026,980	4,981,224
1886. ....	3,610,557	—	56,531	56,531	3,667,088
1887. ....	532,218	—	5,569	15,569	537,787
1888. ....	2,175,472	—	17,534	7,534	2,193,006
1889. ....	575,251	—	1,978,256	1,978,256	2,553,507
1890. ....	1,083,011	—	2,439,782	2,439,782	3,522,793
1891. ....	1,811,170	129,328	817,599	946,927	2,758,097
1892. ....	1,818,530	306,447	1,502,671	1,809,118	3,627,648
1893. ....	6,534,200	309,459	3,824,239	4,133,698	10,667,898
1894. ....	4,023,072	310,006	1,529,374	1,839,380	5,862,452
1895. ....	4,576,620	256,571	4,068,748	4,325,319	8,901,939
1896. ....	5,226,319	207,532	4,491,777	4,699,309	9,925,628
1897. ....	4,676,194	327,298	3,165,252	3,492,550	8,168,744
1898. ....	4,390,844	1,045,723	3,577,415	4,623,138	9,013,982
1899. ....	4,705,134	1,101,245	2,914,780	4,016,025	8,721,159
1900. ....	8,297,438	1,670,068	6,987,100	8,657,168	16,954,606
1901. ....	3,537,294	—	1,978,489	1,978,489	5,515,783
1902. ....	6,311,405	—	1,669,422	1,669,422	7,980,827
1903. ....	8,976,797	—	619,963	619,963	9,596,760
1904. ....	7,874,313	—	2,465,557	2,465,557	10,339,870
1905. ....	10,308,435	—	1,844,811	1,844,811	12,153,246
1906. ....	7,078,603	—	9,928,828	9,928,828	17,007,431
1907 (9 mos.) . . .	7,517,008	—	13,189,964	13,189,964	20,706,972
1908. ....	6,548,661	—	16,637,654	16,637,654	23,186,315
1909. ....	9,988,442	2	1,589,791	1,589,793	11,578,235
1910. ....	6,017,589	—	2,594,536	2,594,536	8,612,125
1911. ....	10,206,210	—	7,196,155	7,196,155	17,402,365
1912. ....	26,033,881	—	7,601,099	7,601,099	33,634,980
1913. ....	5,427,979	—	16,163,702	16,163,702	21,591,681
1914. ....	15,235,305	1,219	23,559,485	23,560,704	38,796,009
1915. ....	131,992,992	667	29,365,701	29,366,368	161,359,360
1916. ....	34,260,202	315	103,572,117	103,572,432	137,832,634
1917. ....	28,081,120	86,087	196,460,961	196,547,048	224,628,168

## DUTIES COLLECTED ON EXPORTS AND IMPORTS.

## 3.—Duties Collected on Exports, 1868-1892, and on Imports for Home Consumption, 1868-1917.

Year.	Duties collected on Exports.	Duties collected on Imports.	Year.	Duties collected on Exports.	Duties collected on Imports.
	\$	\$		\$	\$
1868.....	17,986	8,801,446	1893.....	—	21,161,711
1869.....	14,403	8,284,507	1894.....	—	19,379,822
1870.....	37,912	9,425,028	1895.....	—	17,887,269
1871.....	36,066	11,807,590	1896.....	—	20,219,037
1872.....	24,809	13,020,684	1897.....	—	19,891,997
1873.....	20,152	12,997,578	1898.....	—	22,157,788
1874.....	14,565	14,407,318	1899.....	—	25,734,229
1875.....	7,243	15,354,139	1900.....	—	28,889,110
1876.....	4,500	12,828,614	1901.....	—	29,106,980
1877.....	4,103	12,544,348	1902.....	—	32,425,532
1878.....	4,161	12,791,532	1903.....	—	37,110,355
1879.....	4,272	12,935,269	1904.....	—	40,954,349
1880.....	8,896	14,129,953	1905.....	—	42,024,340
1881.....	8,141	18,492,645	1906.....	—	46,671,101
1882.....	8,810	21,700,028	1907 (9 months)	—	40,290,172
1883.....	9,756	23,162,553	1908.....	—	58,331,074
1884.....	8,515	20,156,448	1909.....	—	48,059,792
1885.....	12,305	19,121,254	1910.....	—	61,024,239
1886.....	20,726	19,427,398	1911.....	—	73,312,368
1887.....	31,397	22,438,309	1912.....	—	87,576,037
1888.....	21,772	22,187,869	1913.....	—	115,063,688
1889.....	42,207	23,742,317	1914.....	—	107,180,578
1890.....	93,674	23,921,234	1915.....	—	79,205,910 <sup>1</sup>
1891.....	64,808	23,416,266	1916.....	—	103,929,426
1892.....	108	20,550,474	1917.....	—	147,623,230

<sup>1</sup>Includes \$2,638,473 war tax.



## TRADE AND COMMERCE.

## 4.—Ratio of Exports to Imports and Value per capita of Exports, Imports and Total Trade, 1868-1917.

Year.	Excess of Imports over Total Exports.	Excess of Total Exports over Imports.	Percent- age Rate of total Exports to Imports entered for con- sumption	Estimated Population.	Value per capita of—		
					Exports.	Imports.	Total Trade.
	\$	\$	p.c.		\$ c.	\$ c.	\$ c.
1868...	14,388,439	—	78.56	3,372,000	15.63	19.90	35.53
1869...	6,898,368	—	89.08	3,413,000	16.48	18.50	34.98
1870...	1,320,862	—	98.01	3,454,000	18.98	19.37	38.35
1871...	16,731,120	—	80.12	3,518,000	19.18	23.94	43.12
1872...	26,326,102	—	74.92	3,611,000	21.77	29.06	50.83
1873...	38,565,149	—	69.03	3,668,000	23.43	33.94	57.37
1874...	35,824,794	—	70.92	3,825,000	22.84	32.20	55.04
1875...	40,561,426	—	65.45	3,887,000	19.77	30.21	49.98
1876...	12,786,709	—	86.18	3,949,000	20.18	23.43	43.61
1877...	18,984,740	—	79.83	4,013,000	18.72	23.45	42.17
1878...	11,241,173	—	87.56	4,079,000	19.41	22.16	41.57
1879...	7,915,850	—	89.94	4,146,000	17.07	18.98	36.05
1880...	—	16,239,161	123.22	4,215,000	20.43	16.58	37.01
1881...	—	6,831,489	107.55	4,337,000	22.44	20.86	43.30
1882...	9,379,074	—	91.56	4,384,000	23.21	25.35	48.56
1883...	24,407,292	—	79.97	4,433,000	21.98	27.49	49.47
1884...	16,750,774	—	84.19	4,485,000	19.89	23.63	43.52
1885...	12,544,394	—	87.42	4,539,000	19.21	21.98	41.19
1886...	10,797,354	—	88.75	4,589,000	18.56	20.92	39.48
1887...	15,596,968	—	85.16	4,638,000	19.30	22.66	41.96
1888...	10,486,162	—	89.58	4,688,000	19.23	21.47	40.70
1889...	21,887,285	—	79.94	4,740,000	18.40	23.02	41.42
1890...	17,373,206	—	84.44	4,793,000	19.68	23.30	42.98
1891...	14,063,585	—	87.39	4,844,000	20.12	23.02	43.14
1892...	3,006,156	—	97.39	4,889,000	22.94	23.55	46.49
1893...	740,176	—	99.36	4,936,000	23.18	23.33	46.51
1894...	—	6,614,658	106.06	4,984,000	23.21	21.88	45.09
1895...	—	8,637,593	108.58	5,034,000	21.71	20.06	41.71
1896...	—	10,953,382	110.40	5,086,000	22.87	20.72	43.59
1897...	—	27,839,876	126.11	5,142,000	26.15	20.73	46.88
1898...	—	33,222,383	126.30	5,199,000	30.68	24.29	54.97
1899...	—	5,534,421	103.71	5,259,000	29.45	28.40	57.85
1900...	—	10,730,677	106.22	5,322,000	34.43	32.41	66.84
1901...	—	16,808,449	109.46	5,403,000	36.00	32.89	68.89
1902...	—	13,490,674	106.87	5,532,000	37.96	35.52	73.48
1903...	—	416,042	100.19	5,673,000	39.87	39.63	79.50
1904...	32,534,341	—	86.64	5,825,000	36.23	41.82	78.05
1905...	50,145,058	—	80.07	5,992,000	33.62	41.99	75.61
1906...	36,624,402	—	87.07	6,171,000	39.97	45.90	85.87
1907...	57,650,641	—	76.92	6,302,000	30.48	39.63	70.11
1908...	88,511,003	—	74.85	6,491,000	40.57	54.21	94.78
1909...	28,295,149	—	90.18	6,695,000	38.82	43.05	81.87
1910...	71,051,434	—	81.79	6,917,000	43.19	53.46	96.65
1911...	161,744,898	—	64.20	7,158,000	40.51	63.11	103.62
1912...	213,732,158	—	59.01	7,343,000	41.91	71.01	112.92
1913...	293,072,711	—	56.27	7,530,000	50.07	88.99	139.06
1914...	163,019,920	—	73.64	7,725,000	58.96	80.06	139.02
1915...	—	5,996,197	101.32	7,928,000	58.20	57.45	115.65
1916...	—	271,482,911	153.46	8,140,000	95.74	62.39	158.13
1917...	—	333,880,197	139.50	8,361,000	141.04	101.10	242.14

## EXPORTS OF CANADA.

5.—Exports to the United Kingdom, to the United States and to Other Countries of Merchandise the produce of Canada, 1868-1917.

Fiscal Year.	United Kingdom.	United States.	Other Countries.	Totals.
	\$	\$	\$	\$
1868.....	17,905,808	22,387,846	5,249,523	45,543,177
1869.....	20,486,389	23,640,188	5,196,727	49,323,304
1870.....	22,512,991	27,398,930	6,169,271	56,081,192
1871.....	21,733,556	26,715,690	6,732,110	55,181,356
1872.....	25,223,785	29,984,440	7,735,802	62,944,027
1873.....	31,402,234	33,421,725	8,421,647	73,245,606
1874.....	35,769,190	30,380,556	7,777,002	73,926,748
1875.....	34,199,134	25,683,818	7,607,941	67,490,893
1876.....	34,379,005	27,451,150	8,031,694	69,861,849
1877.....	35,491,671	22,160,666	8,212,543	65,864,880
1878.....	35,861,110	22,131,343	7,747,681	65,740,134
1879.....	29,393,424	23,149,909	7,546,245	60,089,578
1880.....	35,208,031	26,762,705	8,125,455	70,096,191
1881.....	42,637,219	31,015,109	7,269,051	80,921,379
1882.....	39,816,813	41,687,638	8,538,260	90,042,711
1883.....	39,538,067	36,096,501	8,651,139	84,285,707
1884.....	37,410,870	31,631,622	8,089,587	77,132,079
1885.....	36,479,051	32,618,593	7,085,874	76,183,518
1886.....	36,694,263	31,503,292	6,777,951	74,975,506
1887.....	38,714,331	32,273,033	6,976,656	77,964,020
1888.....	33,648,284	37,323,161	7,326,305	78,297,750
1889.....	33,504,281	36,449,288	7,248,235	77,201,804
1890.....	41,499,149	33,291,207	7,545,158	82,335,514
1891.....	43,243,784	34,829,436	7,684,524	85,757,744
1892.....	45,949,055	31,317,857	9,417,341	95,684,253
1893.....	58,409,606	33,813,802	9,783,082	102,006,490
1894.....	60,878,056	29,297,598	10,411,199	100,586,853
1895.....	57,903,564	32,303,773	9,321,014	99,528,351
1896.....	62,717,941	34,460,428	9,200,383	106,378,752
1897.....	69,533,852	39,717,057	10,434,501	119,685,410
1898.....	93,065,019	34,361,795	12,494,118	139,920,930
1899.....	85,113,681	34,766,955	12,920,626	132,801,262
1900.....	96,562,875	52,534,977	14,412,938	163,510,790
1901.....	92,857,525	67,983,673	16,590,188	177,431,386
1902.....	109,347,345	66,567,784	20,104,634	196,019,763
1903.....	125,199,980	67,766,367	21,435,327	214,401,674
1904.....	110,120,892	66,856,885	21,436,662	198,414,439
1905.....	97,114,867	70,426,765	23,313,314	190,854,946
1906.....	127,456,465	83,546,306	24,481,185	235,483,956
1907 (9 months).....	98,691,186	62,257,299	19,596,821	180,545,306
1908.....	126,194,124	90,814,871	29,951,973	246,960,968
1909.....	126,384,724	85,334,806	30,884,054	242,603,584
1910.....	139,482,945	104,199,675	35,564,931	279,247,551
1911.....	132,156,924	104,115,823	38,043,806	274,316,553
1912.....	147,240,413	102,041,222	40,942,222	290,223,857
1913.....	170,161,903	139,725,953	45,866,744	355,754,600
1914.....	215,253,969	163,372,825	52,961,645	431,588,439
1915.....	186,668,554	173,320,216	49,430,066	409,418,836
1916.....	451,852,399	201,106,488	88,651,751	741,610,638
1917.....	742,147,537	280,616,330	128,611,901	1,151,375,768

## TRADE AND COMMERCE.

## 6.—Imports from the United Kingdom, from the United States and from Other Countries of Merchandise entered for Home Consumption, 1868-1917.

Fiscal Year.	United Kingdom.	United States.	Other Countries.	Totals.
	\$	\$	\$	\$
1868	37,617,325	22,660,132	6,812,702	67,090,159
1869	35,496,764	21,497,380	6,160,797	63,154,941
1870	37,537,095	21,697,237	7,667,742	66,902,074
1871	48,498,202	27,185,586	8,530,600	84,214,388
1872	62,209,254	33,741,995	9,004,118	104,955,367
1873	67,996,945	45,189,110	11,323,074	124,509,129
1874	61,424,407	51,706,906	10,049,574	123,180,887
1875	60,009,084	48,930,358	8,469,126	117,408,568
1876	40,479,253	44,099,880	7,933,974	92,513,107
1877	39,331,621	49,376,008	5,418,765	94,126,394
1878	37,252,769	48,002,875	5,140,207	90,395,851
1879	30,967,778	42,170,306	5,564,435	78,702,519
1880	33,764,439	28,193,783	7,942,320	69,900,542
1881	42,885,142	36,338,701	11,264,486	90,488,329
1882	50,356,268	47,052,935	13,735,981	111,145,184
1883	51,679,762	55,147,243	15,034,491	121,861,496
1884	41,925,121	49,785,888	14,261,969	105,972,978
1885	40,031,448	45,576,510	14,147,817	99,755,775
1886	39,033,000	42,818,651	14,140,486	95,992,137
1887	44,741,356	44,795,908	15,569,946	105,107,210
1888	39,167,644	46,440,296	15,063,688	100,671,628
1889	42,251,189	50,029,419	16,817,588	109,098,196
1890	43,277,009	51,365,661	17,039,903	111,682,573
1891	42,018,943	52,033,477	17,481,534	111,533,954
1892	41,063,711	51,742,132	22,354,570	115,160,413
1893	42,529,340	52,339,796	20,301,694	115,170,830
1894	37,035,963	50,746,091	21,288,857	109,070,911
1895	31,059,332	50,179,004	19,437,555	100,675,891
1896	32,824,505	53,529,390	19,007,266	105,361,161
1897	29,401,188	57,023,342	20,193,297	106,617,827
1898	32,043,461	74,824,923	19,438,778	126,307,162
1899	36,931,323	88,467,173	23,947,963	149,346,459
1900	44,279,983	102,080,177	26,146,718	172,506,878
1901	42,819,995	107,149,325	27,731,374	177,700,694
1902	49,022,726	114,744,696	32,712,768	196,480,190
1903	58,793,038	128,790,237	37,230,444	224,813,719
1904	61,724,616	143,010,578	38,854,825	243,590,019
1905	60,342,704	152,431,626	38,842,789	251,617,119
1906	69,183,915	168,798,376	45,299,913	283,282,204
1907 (9 months)	64,415,415	148,598,061	36,724,398	249,737,874
1908	94,417,314	204,648,885	52,813,756	351,879,955
1909	70,682,101	170,056,178	47,479,236	288,217,515
1910	95,336,427	217,502,415	56,976,585	369,815,427
1911	109,934,665	274,844,858	66,965,585	451,745,108
1912	116,906,212	330,428,502	74,113,595	521,448,309
1913	138,742,767	435,769,050	95,577,249	670,089,066
1914	132,070,362	395,565,328	90,821,454	618,457,144
1915	90,158,119	296,632,486	68,655,707	455,446,312
1916	77,404,361	370,496,574	59,916,224	507,817,159
1917	107,071,181	664,219,653	74,040,069	845,330,903



## EXPORTS OF CANADA.

7.—Values of Exports from Canada to the United Kingdom, to the United States, to Other Countries and to All Countries, by Classes of Merchandise, in five-year averages and for the fiscal years 1911-1917.

## AGRICULTURAL PRODUCE.

Five year averages and Fiscal Years.	United Kingdom.	United States.	Other Countries.	All Countries, Domestic.	All Countries, Foreign.	All Countries, Domestic and Foreign.
	\$	\$	\$	\$	\$	\$
1868-70 (3 yrs)	4,351,631	7,882,788	675,706	12,910,125	<sup>1</sup>	12,910,125
1871-75	6,671,196	7,447,890	896,245	15,015,331	<sup>1</sup>	15,015,331
1876-80	9,384,915	8,687,568	1,079,634	19,152,117	7,073,387	26,225,504
1881-85	7,940,534	11,341,045	1,126,160	20,407,739	6,327,318	26,735,057
1886-90	5,759,239	8,734,096	954,168	15,447,503	4,647,322	20,094,825
1891-95	11,732,535	4,498,334	2,014,413	18,245,282	6,147,039	24,392,321
1896-00	18,185,661	1,995,339	2,938,763	23,119,763	9,533,823	32,653,586
1901-05	25,133,710	3,648,626	5,955,968	34,738,304	8,750,732	43,489,036
1906-10	51,527,333	4,690,418	7,466,218	63,683,969	9,113,570	72,797,539
1911	61,393,720	10,385,705	10,821,859	82,601,284	7,457,829	90,059,113
1912	81,784,731	11,685,611	13,673,033	107,143,375	8,311,111	115,454,486
1913	106,537,156	27,215,879	16,392,626	150,145,661	8,810,034	158,955,695
1914	146,230,104	32,506,548	19,483,377	198,220,029	8,595,689	206,815,718
1915	95,834,460	19,405,521	19,506,069	134,746,050	35,604,014	170,350,064
1916	196,077,876	18,620,236	34,963,082	249,661,194	17,213,996	266,875,190
1917	266,210,322	45,138,610	62,064,769	373,413,701	7,451,069	380,864,770

## ANIMALS AND THEIR PRODUCE.

1868-70 (3 yrs)	3,470,524	5,377,809	418,579	9,266,912	<sup>1</sup>	9,266,912
1871-75	6,755,882	6,128,055	503,696	13,387,633	<sup>1</sup>	13,387,633
1876-80	9,237,142	4,908,570	566,933	14,712,645	852,296	15,564,941
1881-85	15,177,091	6,372,773	526,642	22,076,506	1,102,096	23,178,602
1886-90	16,501,400	6,946,676	558,598	24,006,674	1,012,335	25,019,009
1891-95	26,223,970	3,645,801	643,996	30,513,767	1,244,390	31,758,157
1896-00	39,469,536	4,514,262	605,462	44,589,260	1,256,795	45,846,055
1901-05	55,778,082	5,182,806	1,363,839	62,324,727	662,755	62,987,482
1906-10	47,453,100	7,803,531	1,194,545	56,451,176	724,207	57,175,383
1911	40,636,575	10,063,544	1,544,055	52,244,174	809,663	53,053,837
1912	36,923,024	9,864,524	1,423,106	48,210,654	1,010,243	49,220,897
1913	30,335,784	12,866,948	1,581,647	44,784,593	988,634	45,773,227
1914	26,735,114	24,728,798	1,885,207	53,349,119	1,262,953	54,612,072
1915	38,222,698	34,186,056	1,981,989	74,390,743	2,565,259	76,956,002
1916	67,821,789	29,051,195	6,009,292	102,882,276	2,936,914	105,819,190
1917	93,299,158	28,575,365	5,920,945	127,795,468	7,517,342	135,312,810

## FISHERIES PRODUCE.

1868-70 (3 yrs)	261,397	985,197	2,156,329	3,402,923	<sup>1</sup>	3,402,923
1871-75	513,070	1,269,409	2,984,053	4,766,532	<sup>1</sup>	4,766,532
1876-80	1,037,612	1,759,661	3,550,297	6,347,570	58,529	6,406,099
1881-85	1,838,937	3,005,591	3,137,585	7,982,113	25,701	8,007,814
1886-90	1,758,642	2,823,884	2,854,773	7,437,299	77,112	7,514,411
1891-95	3,366,495	3,409,915	3,209,347	9,985,757	224,550	10,210,307
1896-00	4,266,576	3,229,683	3,166,240	10,662,499	118,087	10,780,586
1901-05	3,800,480	4,197,481	3,709,474	11,707,435	25,127	11,732,562
1906-10	4,153,822	4,437,372	5,256,441	13,847,635	44,614	13,892,249
1911	4,435,891	4,980,741	6,258,912	15,675,544	114,315	15,789,859
1912	5,132,047	5,378,664	6,193,967	16,704,678	110,514	16,815,192
1913	3,946,471	5,747,688	6,642,562	16,336,721	106,101	16,442,822
1914	7,008,888	6,852,009	6,762,663	20,623,560	111,289	20,734,849
1915	5,448,902	8,521,901	5,716,265	19,687,068	131,669	19,818,737
1916	6,731,794	8,867,139	6,779,044	22,377,977	213,307	22,591,284
1917	7,316,744	10,717,048	6,855,461	24,889,253	429,502	25,318,755

<sup>1</sup> Not separately stated prior to 1876.



## TRADE AND COMMERCE.

7.—Values of Exports from Canada to the United Kingdom, to the United States, to Other Countries and to All Countries, by Classes of Merchandise, in five-year averages and for the fiscal years 1911-1917—con.

## FOREST PRODUCE.

Five year averages and Fiscal Years.	United Kingdom.	United States.	Other Countries.	All Countries. Domestic.	All Countries. Foreign.	All Countries. Domestic and Foreign
	\$	\$	\$	\$	\$	\$
1868-70 (3 yrs)	10,368,800	8,094,241	1,770,228	20,233,269	<sup>1</sup>	20,233,269
1871-75.....	13,872,407	9,423,951	2,529,683	25,826,041	<sup>1</sup>	25,826,041
1876-80.....	12,007,936	9,912,106	1,674,162	18,594,204	551,197	19,145,401
1881-85.....	12,491,267	9,539,600	2,193,604	24,224,531	1,173,534	25,398,065
1886-90.....	10,714,758	9,962,383	1,731,722	22,408,863	1,541,613	23,950,476
1891-95.....	10,574,531	12,577,298	1,482,227	24,634,056	919,202	25,553,258
1896-00.....	14,544,194	12,205,380	1,776,656	28,526,230	247,499	28,773,729
1901-05.....	14,747,317	15,506,453	2,714,811	32,968,581	145,227	33,113,808
1906-10.....	11,400,778	25,442,049	3,888,264	40,731,031	198,768	40,929,799
1911.....	11,965,121	28,785,427	4,688,469	45,439,057	158,542	45,597,599
1912.....	10,950,840	25,483,532	4,458,302	40,892,674	212,213	41,104,887
1913.....	10,103,469	29,951,880	3,199,711	43,255,060	424,563	43,679,623
1914.....	10,647,123	29,304,546	2,840,468	42,792,137	593,950	43,386,087
1915.....	9,914,548	31,030,873	1,705,262	42,650,683	486,098	43,136,781
1916.....	14,147,250	34,619,722	2,504,428	51,271,400	426,884	51,698,284
1917.....	14,860,590	36,902,651	4,143,968	55,907,209	488,091	56,395,300

## MANUFACTURES.

1868-70 (3 yrs)	1,167,472	829,903	360,405	2,357,780	<sup>1</sup>	2,357,780
1871-75.....	1,221,958	1,238,702	486,204	2,946,864	<sup>1</sup>	2,946,864
1876-80.....	1,956,514	1,036,740	871,601	3,864,855	710,796	4,575,651
1881-85.....	1,320,117	1,330,968	682,365	3,333,390	745,285	4,078,675
1886-90.....	1,511,085	1,723,732	813,488	4,048,305	475,314	4,543,619
1891-95.....	2,677,734	3,011,203	1,600,628	7,298,565	783,235	8,081,900
1896-00.....	4,683,367	3,516,510	2,599,465	11,099,342	1,046,583	12,145,925
1901-05.....	6,662,550	6,984,218	5,584,337	19,231,105	2,478,872	21,709,977
1906-10.....	6,875,522	11,436,443	8,209,673	26,521,638	3,702,821	30,224,459
1911.....	6,973,820	16,524,063	11,785,293	35,283,118	5,149,408	40,432,526
1912.....	6,852,710	16,312,751	12,670,823	35,836,284	6,672,701	42,508,985
1913.....	7,158,746	21,321,458	15,212,504	43,692,708	8,832,374	52,525,082
1914.....	8,583,546	30,391,764	18,468,148	57,443,452	10,158,786	67,602,238
1915.....	24,848,356	42,164,753	18,526,389	85,539,501	9,529,024	95,068,525
1916.....	148,477,303	58,202,141	35,355,554	242,034,998	8,017,225	250,052,223
1917.....	339,013,448	91,990,586	46,395,642	477,399,676	9,913,090	487,312,766

## MINERAL PRODUCE.

1868-70 (3 yrs)	666,535	1,004,320	152,730	1,803,385	<sup>1</sup>	1,803,385
1871-75.....	582,829	3,366,538	226,395	4,175,762	<sup>1</sup>	4,175,762
1876-80.....	409,727	2,637,275	183,491	3,230,493	74,599	3,305,092
1881-85.....	375,996	2,500,124	251,663	3,127,783	160,862	3,288,645
1886-90.....	519,797	3,451,809	256,988	4,228,594	250,749	4,479,343
1891-95.....	485,094	5,113,029	362,825	5,960,948	242,450	6,203,398
1896-00.....	216,096	13,638,433	497,518	14,354,047	244,518	14,598,565
1901-05.....	782,159	32,367,609	1,238,669	34,387,837	187,891	34,575,728
1906-10.....	2,194,268	31,381,056	2,061,333	35,636,687	306,840	35,943,527
1911.....	6,726,015	33,129,505	2,932,041	42,787,561	290,879	43,078,440
1912.....	5,555,599	33,259,580	2,509,337	41,324,516	186,066	41,510,582
1913.....	12,066,622	42,541,751	2,834,173	57,442,546	140,484	57,583,030
1914.....	16,027,128	39,491,127	3,520,799	59,039,054	194,852	59,233,906
1915.....	12,219,937	37,558,209	1,962,843	51,740,989	325,548	52,066,537
1916.....	12,425,248	51,425,708	2,738,905	66,589,861	7,329,537	73,919,398
1917.....	15,545,227	66,974,768	3,096,912	85,616,907	219,514	85,836,421

NOTE.—The statistics of this table are exclusive of coin and bullion, and of exports to the United States estimated "short" for the years 1868-1900.

<sup>1</sup>Not separately stated prior to 1876.

## EXPORTS OF CANADA.

7.—Values of Exports from Canada to the United Kingdom, to the United States, to Other Countries and to All Countries, by Classes of Merchandise, in five-year averages and for the fiscal years 1911-17—concluded.

## MISCELLANEOUS PRODUCE.

Five year averages and Fiscal Years.	United Kingdom.	United States.	Other Countries.	All Countries. Domestic.	All Countries. Foreign.	All Countries. Domestic, and Foreign.
	\$	\$	\$	\$	\$	\$
1868-70 (3 yrs)	15,569	301,398	24,530	341,497	1	341,497
1871-75.....	48,238	362,699	28,625	439,562	1	439,562
1876-80.....	32,802	389,236	6,604	428,642	100,516	529,158
1881-85.....	32,460	519,732	8,823	561,015	110,023	671,038
1886-90.....	47,141	525,417	5,123	577,681	131,762	709,443
1891-95.....	16,454	56,913	995	74,362	275,261	349,623
1896-00.....	31,243	68,635	8,410	108,288	392,320	500,608
1901-05.....	28,823	33,102	9,526	66,451	772,457	838,908
1906-10.....	37,035	39,723	19,378	96,136	1,000,976	1,197,112
1911.....	25,772	246,896	13,147	285,815	1,703,021	1,988,836
1912.....	41,462	56,560	13,654	111,676	989,446	1,101,122
1913.....	13,655	80,349	3,307	97,311	2,011,565	2,108,876
1914.....	22,072	98,033	983	121,088	2,931,266	3,052,354
1915.....	179,650	453,173	30,979	663,802	3,382,061	4,045,863
1916.....	6,171,139	320,347	301,446	6,792,932	1,551,569	8,344,501
1917.....	5,902,048	317,302	134,204	6,353,554	1,816,724	8,170,278

## TOTAL EXPORTS OF MERCHANDISE.

1868-70 (3 yrs)	20,301,729	24,475,655	5,538,507	50,315,891	4,860,081	55,175,972
1871-75.....	29,665,580	29,237,246	7,651,900	66,557,726	9,961,750	76,519,476
1876-80.....	34,066,648	24,331,155	7,932,723	66,330,526	9,421,319	75,751,845
1881-85.....	30,176,404	34,600,893	7,926,782	81,713,079	9,644,819	91,357,898
1886-90.....	36,812,062	34,167,990	7,174,861	78,154,919	8,156,208	86,311,127
1891-95.....	55,076,812	32,312,493	9,323,432	96,712,738	9,836,225	106,548,963
1896-00.....	81,398,074	39,168,212	11,822,513	132,459,429	12,839,625	145,299,054
1901-05.....	106,928,122	67,920,295	20,576,025	195,424,442	13,023,060	208,447,502
1906-10.....	123,641,889	85,230,591	28,095,793	236,968,273	15,191,796	252,160,069
1911.....	132,156,924	104,115,823	38,043,806	274,316,553	15,683,657	290,000,210
1912.....	147,240,413	102,041,222	40,942,222	290,223,857	17,492,294	307,716,151
1913.....	170,161,903	139,725,953	45,866,744	355,754,600	21,313,755	377,068,355
1914.....	215,253,909	163,372,825	52,961,645	431,588,439	23,848,785	455,437,224
1915.....	186,668,554	173,320,216	49,430,966	409,418,836	52,023,673	461,442,509
1916.....	451,852,399	201,106,488	88,651,751	741,610,638	37,689,432	779,300,070
1917.....	742,147,537	280,616,330	128,611,901	1,151,375,768	27,835,332	1,179,211,100

<sup>1</sup> Not separately stated prior to 1876.







## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce</b>					
	—totals..... \$	106,537,156	27,215,879	150,145,661	146,230,104	32,506,548
1	Balsam..... \$	186	6,086	7,377	4,536	17,591
2	Cider..... gal.	185,828	158	187,219	150,683	40
	\$	22,014	17	22,266	19,580	10
3	Flax.....cwt.	120	2,230	2,350	—	6,065
	\$	1,250	22,926	24,176	—	46,369
	<b>Fruits—</b>					
4	Apples, dried... lb.	121,188	186,116	3,199,539	424,200	376,466
	\$	7,837	10,609	213,831	25,877	24,035
5	Apples, green or ripe.....bbl.	1,245,104	9,366	1,324,769	858,413	18,230
	\$	3,804,967	22,898	4,047,806	3,137,267	62,431
6	Berries, all kinds..... “	—	99,965	100,019	—	91,705
7	Canned or pre- served..... “	216,589	3,336	220,786	375,913	14,546
8	All other..... “	35,978	15,136	96,741	110,695	40,673
	<b>Total fruits... “</b>	<b>4,065,371</b>	<b>151,944</b>	<b>4,679,183</b>	<b>3,649,752</b>	<b>233,390</b>
	<b>Grain and products of—</b>					
9	Barley.....bush.	5,556,090	773,281	6,455,975	10,905,712	1,584,851
	\$	3,315,172	440,468	3,851,660	5,514,016	709,092
10	Beans.....bush.	—	2,128	3,759	—	8,737
	\$	—	6,182	9,826	—	23,011
11	Buckwheat...bush.	103,024	53,387	223,833	16,093	138,707
	\$	53,432	28,686	118,575	9,653	100,959
12	Indian corn...bush.	7,280	13,419	21,301	17,421	11,095
	\$	4,077	10,510	15,075	13,937	7,580
13	Oats.....bush.	7,293,004	1,726,580	10,478,554	13,903,389	18,928,221
	\$	3,592,237	739,357	5,067,950	5,644,951	6,802,403
14	Peas, whole...bush.	22,420	49,730	87,694	12,187	82,424
	\$	43,299	116,538	199,125	27,538	162,020
15	Peas, split....bush.	—	4	6,852	644	11,647
	\$	—	7	10,447	1,486	8,327
16	Rye.....bush.	25,544	616	26,160	95,413	16,978
	\$	14,305	603	14,908	64,393	11,473
17	Wheat.....bush.	77,722,465	9,834,530	93,166,009	108,574,397	7,522,027
	\$	74,978,155	8,352,983	88,608,730	106,696,231	6,891,624
18	Other grains...bush.	—	101,170	101,170	—	—
	\$	—	45,048	45,048	—	—
	<b>Total grains...bush.</b>	<b>90,729,827</b>	<b>12,554,845</b>	<b>110,571,307</b>	<b>133,525,256</b>	<b>28,304,687</b>
	\$	<b>82,000,687</b>	<b>9,740,382</b>	<b>97,941,344</b>	<b>117,972,205</b>	<b>14,716,489</b>
19	Bran.....cwt.	97,822	1,019,766	1,662,338	28,717	1,806,242
	\$	92,221	888,432	1,603,003	25,355	1,509,595
20	Cereal foods.... “	1,382,331	34,275	2,015,675	1,408,413	25,120
21	Flour of wheat...bbl.	2,880,157	29,983	4,478,043	2,794,657	19,436
	\$	12,442,479	134,743	19,970,689	11,584,843	85,745
22	Indian meal....bbl.	—	—	2,239	430	200
	\$	—	—	7,767	2,400	400

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916.

	1915.			1916.			No.
	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.
198,220,029	95,834,460	19,405,251	134,746,050	196,077,876	18,620,236	249,661,194	
22,617	2,878	20,526	23,954	7,386	4,746	12,254	1
151,073	85,362	3,275	88,736	39,257	—	40,501	2
19,737	15,169	528	15,715	7,423	—	7,750	
6,065	1,110	5,619	6,729	923	9,890	10,813	3
46,369	7,022	27,208	34,230	15,232	71,063	86,295	
6,082,476	2,307,481	170,810	4,488,050	730,267	140	1,420,122	4
411,789	138,048	9,796	276,060	47,570	9	110,428	
947,382	1,041,913	27,520	1,117,336	525,316	6,413	577,451	5
3,465,475	2,460,413	61,445	2,657,115	1,588,370	18,792	1,766,171	
91,935	—	106,412	106,545	1,208	158,123	160,615	6
394,719	433,146	31,243	476,497	799,554	37,990	864,984	7
220,147	41,962	12,915	80,804	14,863	32,826	55,324	8
4,584,065	3,073,569	221,811	3,597,021	2,451,565	247,740	2,957,522	
13,032,369	4,388,577	366,101	5,576,646	4,915,517	366,573	5,928,373	9
6,513,557	2,520,084	203,118	3,262,025	3,229,986	225,843	3,775,341	
11,377	530	12,526	28,661	510	3,835	10,439	10
28,850	1,030	32,773	73,508	1,072	14,013	34,472	
172,802	225,309	115,531	343,349	83,739	321,380	489,578	11
120,353	176,845	93,696	272,516	65,395	250,692	383,415	
30,813	139,511	69,608	376,663	—	30,810	33,943	12
23,542	106,848	50,945	256,090	—	27,639	30,906	
34,996,664	8,537,236	3,825,549	17,768,166	17,597,470	1,364,479	26,816,322	13
13,379,849	4,067,540	1,536,465	8,961,126	8,606,102	632,748	14,637,849	
121,359	25,587	213,224	261,354	30,233	104,147	166,699	14
240,274	66,013	417,331	532,171	105,741	249,624	448,446	
21,371	—	13,885	41,624	—	11,525	21,895	15
22,971	—	39,483	107,677	—	34,556	64,471	
112,436	87,282	146,055	263,422	153,883	426,437	644,720	16
75,888	93,291	138,855	259,622	136,017	362,654	556,017	
120,426,579	64,301,202	4,092,026	71,913,385	140,414,411	8,365,331	157,745,469	17
117,719,217	66,362,044	4,223,505	74,293,548	153,708,244	8,842,441	172,896,445	
3,610	—	—	—	—	—	—	18
4,760	—	—	—	—	—	—	
168,920,380	77,705,234	8,853,965	96,573,270	163,195,763	10,994,517	191,857,438	
138,129,261	73,394,695	6,736,171	88,018,283	163,852,557	10,640,210	192,827,362	
2,077,713	77,986	871,358	1,038,134	—	—	—	19
1,789,939	53,042	778,626	946,331	76,040	1,602,153	1,787,398	
2,166,236	1,474,007	24,559	1,970,402	1,746,361	28,095	1,950,706	20
4,822,182	3,137,146	52,429	4,952,337	3,894,511	251,220	6,400,214	21
20,581,075	15,901,713	232,967	24,610,946	21,812,179	1,259,898	35,767,014	
3,939	—	6	2,560	—	272	2,184	22
14,639	—	25	9,549	—	735	8,043	

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce—con.</b>					
1	Oatmeal..... bbl.	187,506	1	188,987	108,138	2,035
	\$	830,417	6	837,079	473,220	9,085
2	Meal, all other.. bbl.	2,989	465	5,153	30	1,933
	\$	11,956	1,488	17,836	50	7,096
3	Malt..... bush.	—	120	23,006	—	—
	\$	—	120	15,723	—	—
	<b>Total flour, meal and malt “</b>	<b>13,284,852</b>	<b>136,357</b>	<b>20,849,094</b>	<b>12,060,613</b>	<b>102,326</b>
4	Hay..... ton	62,871	316,521	394,208	26,916	154,337
	\$	759,241	2,978,682	3,950,058	296,331	1,358,621
5	Hops..... lb.	182,625	19,758	223,625	248,660	892
	\$	33,645	4,133	42,407	56,802	303
6	Maple sugar..... lb.	37,328	1,116,972	1,154,635	38,726	1,883,878
	\$	3,869	100,419	104,324	3,862	155,476
7	Maple syrup..... gal.	1,915	1,670	3,846	2,880	1,732
	\$	2,105	1,785	4,151	2,769	1,893
	Seeds—					
8	Clover..... bush.	26,750	30,513	69,149	24,226	86,458
	\$	310,629	292,801	738,377	226,222	798,771
9	Flaxseed..... bush.	2,536,336	7,561,004	10,123,693	8,579,713	10,164,536
	\$	4,537,360	11,385,186	16,448,899	10,482,556	11,910,681
10	Grass..... bush.	8,592	91,876	117,621	7,268	76,850
	\$	11,854	84,854	124,949	8,816	67,598
11	All other..... “	777	43,426	44,831	1,644	48,973
	<b>Total seeds. “</b>	<b>4,860,620</b>	<b>12,306,267</b>	<b>17,357,056</b>	<b>10,719,238</b>	<b>12,826,023</b>
12	Straw..... ton	52	5,410	5,574	—	4,948
	\$	374	27,872	29,170	—	27,578
13	Tobacco leaf.... lb.	3,142	62,767	90,382	4,220	163,122
	\$	450	19,406	24,410	429	54,022
14	Trees, shrubs and plants..... “	701	23,532	24,905	860	31,839
	Vegetables—					
15	Canned or pre-served..... \$	20,329	655	24,959	7,194	3,708
16	Potatoes..... bush.	8	152,557	1,019,716	20	1,001,287
	\$	6	128,211	749,363	13	434,956
17	Turnips..... bush.	—	1,318,655	1,353,810	—	1,684,961
	\$	—	157,322	164,565	—	304,711
18	All other..... “	96	62,512	85,223	195	107,703
	<b>Total vegetables “</b>	<b>20,431</b>	<b>348,700</b>	<b>1,024,110</b>	<b>7,402</b>	<b>851,078</b>
19	All other agricultural products. “	6,808	424,664	442,952	1,957	548,825

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
111,527	57,505	1,025	60,320	82,012	10,609	92,913	1
488,589	275,786	3,928	287,844	416,825	52,672	471,298	
2,042	—	90	432	293	133	460	2
7,534	—	337	1,616	1,322	672	2,136	
4,337	—	1,600	4,481	—	—	63,568	3
4,256	—	1,536	4,141	—	—	63,778	
<b>21,096,097</b>	<b>16,177,499</b>	<b>238,793</b>	<b>24,914,096</b>	<b>22,230,326</b>	<b>1,313,977</b>	<b>36,312,299</b>	
192,515	6,411	59,964	131,875	86,661	39,797	225,407	4
1,787,050	88,813	629,728	2,232,558	2,231,209	503,764	5,849,428	
252,692	167,935	1,211	170,226	322,110	40,041	362,197	5
57,890	35,430	242	35,892	58,341	10,007	68,366	
1,925,343	80,029	1,381,590	1,462,416	49,879	1,698,770	1,749,095	6
159,619	6,670	124,704	131,477	6,116	172,619	178,791	
5,205	2,216	3,598	6,165	2,352	2,352	5,170	7
5,284	2,389	3,944	6,687	2,635	2,632	5,794	
118,601	18,485	19,650	44,735	18,833	17,343	38,895	8
1,094,330	152,848	167,370	375,205	146,194	146,956	322,270	
20,647,327	675,318	7,006,249	7,689,525	13,951	1,930,592	1,944,543	9
24,816,333	928,346	9,420,263	10,359,703	47,511	2,926,421	2,973,932	
110,873	5,499	63,140	73,806	3,815	55,815	59,832	10
106,708	6,461	53,598	69,118	10,023	53,953	64,579	
58,631	73	4,651	5,755	4,156	14,793	20,507	11
<b>26,076,002</b>	<b>1,087,728</b>	<b>9,645,882</b>	<b>10,809,781</b>	<b>207,884</b>	<b>3,142,123</b>	<b>3,381,288</b>	
5,118	24	4,816	4,962	31	7,073	7,337	12
28,964	194	28,502	29,618	271	39,549	41,798	
196,524	1,419	28,724	36,445	122	67,259	89,974	13
66,126	624	18,336	21,644	61	24,119	28,396	
34,224	18	20,748	22,538	22,509	18,769	43,517	14
17,655	262,918	11,627	299,412	587,722	8,915	637,617	15
1,980,844	102,090	89,610	1,192,258	10	53,922	684,455	16
1,127,541	71,477	34,765	696,783	7	27,046	445,191	
1,707,062	—	2,138,701	2,150,399	1,600	1,931,395	1,945,623	17
309,582	—	284,171	286,461	336	314,973	318,439	
123,479	73,970	129,124	217,627	563,657	135,123	2,395,265	18
<b>1,578,257</b>	<b>408,335</b>	<b>459,687</b>	<b>1,500,283</b>	<b>1,151,722</b>	<b>486,057</b>	<b>3,796,512</b>	
572,198	5,478	425,256	435,540	10,238	312,613	325,718	19



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>II. Animals and their produce—totals. \$</b>	<b>30,335,784</b>	<b>12,866,948</b>	<b>44,784,593</b>	<b>26,735,114</b>	<b>24,728,978</b>
1	Animals, living— Cattle, 1 year old or less... NO.	—	5,309	5,409	—	20,685
	\$	—	52,566	53,824	—	251,047
2	Cattle, over 1 year old or less..... NO.	12,069	22,959	38,887	9,778	185,761
	\$	913,954	1,064,357	2,183,311	697,807	6,792,039
3	Horses, 1 year old or less... NO.	—	11	11	—	82
	\$	—	2,360	2,360	—	4,067
4	Horses, over 1 year old.... NO.	74	1,770	2,145	34	3,245
	\$	14,400	470,665	526,685	8,670	741,311
5	Hogs..... NO.	—	88	654	—	27,688
	\$	—	1,415	5,162	—	442,199
6	Sheep, 1 year old or less.. NO.	—	5,340	5,356	—	13,237
	\$	—	29,982	30,078	—	70,309
7	Sheep, over 1 year old.... NO.	—	6,122	8,404	500	4,441
	\$	—	38,600	51,175	4,000	38,147
8	Poultry and other, n.e.s. "	4,438	86,117	97,082	2,185	178,983
	<b>Total animals, living..... "</b>	<b>932,792</b>	<b>1,746,062</b>	<b>2,949,677</b>	<b>712,662</b>	<b>8,518,102</b>
	<b>Animal products—</b>					
	<b>Meats, viz.—</b>					
9	Bacon..... lb.	35,963,906	151,182	36,212,190	23,620,861	214,897
	\$	5,313,711	23,796	5,350,845	3,717,266	41,704
10	Beef..... lb.	782,920	19,474	1,570,979	190,787	12,637,839
	\$	71,896	1,912	135,111	13,077	1,085,102
11	Hams..... lb.	2,432,074	3,455	2,476,654	1,664,787	220,695
	\$	316,047	552	322,669	236,468	32,570
12	Mutton..... lb.	—	34,340	45,914	—	53,751
	\$	—	5,545	6,742	—	9,471
13	Pork..... lb.	4,065	57,411	521,533	54,784	1,512,688
	\$	462	7,021	57,960	9,257	170,961
14	Poultry, dressed or undressed. "	5,365	5,190	20,867	514	59,425
15	Game, dressed or undressed "	10	3,097	3,139	—	4,596
16	Tongues.... lb.	3,258	—	6,098	—	—
	\$	488	—	914	—	—

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
53,349,119	38,222,698	34,186,056	74,390,743	67,821,789	29,051,195	102,882,276	
20,782	—	34,048	34,082	—	56,409	56,455	1
252,078	—	415,889	416,038	—	626,721	627,005	
198,147	—	149,604	151,821	1,752	170,775	185,105	2
7,654,716	—	8,736,700	8,851,496	105,120	10,523,073	11,998,755	
82	—	16	16	—	7	7	3
4,067	—	1,272	1,272	—	495	495	
3,486	7,736	2,513	10,398	21,833	2,857	26,811	4
779,564	1,382,345	438,652	1,841,095	3,899,822	496,609	4,700,191	
28,207	—	243,031	243,311	—	9,435	9,925	5
446,430	—	3,114,437	3,117,005	—	67,499	70,710	
13,324	—	35,293	35,293	—	74,178	74,350	6
70,719	—	211,714	211,714	—	443,225	444,260	
7,219	—	6,349	7,539	—	18,739	20,128	7
57,774	—	68,320	74,898	—	141,614	149,505	
189,735	10,760	400,174	417,474	701	387,675	403,197	8
9,455,083	1,393,105	13,387,158	14,930,992	4,005,643	12,686,911	18,394,118	
23,859,754	72,036,025	4,606,235	76,801,419	144,150,309	615,901	144,918,867	9
3,763,195	11,080,424	707,334	11,811,825	25,563,698	124,176	25,710,767	
13,133,205	1,330,282	17,036,698	18,828,257	13,912,371	9,433,072	47,422,564	10
1,127,908	179,998	1,761,145	1,988,489	2,009,427	938,232	5,994,833	
1,890,182	9,198,208	8,744,079	17,958,874	7,376,160	832,523	8,732,857	11
269,911	1,376,151	1,273,810	2,652,917	1,186,172	113,042	1,379,346	
65,167	—	1,029,021	1,064,963	—	45,973	99,593	12
10,804	—	119,911	124,087	—	7,800	14,360	
1,811,204	5,849,254	15,178,341	21,288,226	10,198,476	2,268,989	13,142,169	13
202,391	781,643	1,791,592	2,599,844	1,645,333	245,939	1,990,856	
73,972	64,791	138,614	212,992	40,662	59,054	111,878	14
4,831	—	2,143	2,340	—	3,725	4,147	15
—	12,272	173,897	192,469	194,745	290,435	485,180	16
—	2,369	22,074	24,703	22,203	36,892	59,095	

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>II. Animals and their produce—con.</b>					
	Animal products—con.					
	Meats—con.					
1	Canned..... lb.	244,732	2,661	254,937	279,922	170,564
	\$	25,788	355	26,718	31,518	24,958
2	All other, n.e.s. lb.	2,581,026	343,642	3,126,799	955,290	1,641,171
	\$	265,209	38,367	338,971	95,297	132,184
	<b>Total meats. "</b>	<b>5,998,976</b>	<b>85,835</b>	<b>6,263,936</b>	<b>4,103,397</b>	<b>1,560,971</b>
	Other animal products					
3	Bones..... cwt.	—	43,910	44,085	171	65,012
	\$	—	64,241	64,503	500	94,086
4	Butter..... lb.	681	304,503	828,323	138,349	500,623
	\$	173	75,192	223,578	31,950	111,894
5	Casein..... lb.	—	349,865	349,865	—	270,486
	\$	—	15,342	15,342	—	11,071
6	Cheese..... lb.	153,886,884	261,682	155,216,392	142,138,799	1,346,128
	\$	20,497,195	41,366	20,697,144	18,533,880	187,335
7	Eggs..... doz.	51,295	9,852	147,419	—	62,273
	\$	9,224	2,574	35,519	—	19,602
8	Furs, dressed.. "	2,018	11,420	15,306	1,261	10,035
9	Furs, undressed "	2,628,994	2,184,275	5,150,833	3,059,305	2,139,228
10	Grease and grease scrap..... lb.	26,791	3,847,823	4,302,192	512,750	3,460,104
	\$	1,900	80,943	116,172	22,059	88,250
11	Glue stock.... "	—	27,472	27,472	—	26,719
12	Hair..... "	7,367	196,400	205,999	7,084	225,302
13	Hides and skins, other than fur "	314	7,162,287	7,196,250	6,408	9,062,045
14	Horns and hoofs "	—	25,553	26,976	75	14,252
15	Honey..... lb.	40	4,987	5,027	1,140	14,032
	\$	6	592	598	211	1,554
16	Lard..... lb.	34,500	2,475	46,638	36,046	69,603
	\$	4,080	369	5,517	2,705	6,546
17	Milk and cream, condensed... lb.	30	35,105	335,849	—	5,573,737
	\$	3	5,107	25,554	—	301,177
18	Milk and cream, fresh..... gal.	—	828,299	828,299	—	1,631,097
	\$	—	752,535	752,535	—	1,337,300
19	Oils, neat's foot and other... gal.	3,086	6,080	194,525	51	3,495
	\$	3,513	5,638	222,746	44	3,090
20	Sausage casings "	45,544	153,427	324,805	32,972	181,488
21	Sheep pelts.... "	—	43,812	43,812	3,278	134,410
22	Tallow..... lb.	890,037	721,960	1,995,433	1,485,576	664,993
	\$	55,689	44,192	123,424	102,419	43,891

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
638,583	6,039,495	260,075	9,882,662	9,759,909	119,681	11,031,893	1
94,961	1,627,964	39,826	2,340,081	2,582,893	24,293	2,730,616	2
2,849,082	1,011,256	3,107,698	4,403,437	1,868,510	1,821,486	3,939,164	
266,879	96,862	198,625	310,663	101,719	85,928	200,644	
5,814,852	15,210,202	6,055,074	22,067,941	33,152,107	1,639,081	38,196,542	
65,183	—	71,060	72,790	—	74,244	74,459	3
94,586	—	93,448	95,665	—	89,820	90,391	
1,228,750	585,605	1,367,171	2,724,913	1,950,137	205,029	3,441,183	4
309,046	150,612	268,541	639,625	597,223	42,665	1,018,769	
270,483	—	230,045	230,045	—	50,564	50,564	5
11,071	—	13,923	13,923	—	3,282	3,282	
144,478,346	135,900,614	253,809	137,601,661	167,414,411	103,308	168,961,583	6
18,868,785	18,936,704	39,461	19,213,501	26,398,013	22,514	26,690,500	
124,002	3,100,247	436,569	3,592,899	7,565,884	270,973	7,898,322	7
37,150	850,808	98,271	965,640	2,191,687	63,469	2,273,412	
11,550	6,300	19,506	29,862	2,605	106,386	110,198	8
5,557,926	1,297,702	1,320,887	2,726,961	929,217	3,644,097	4,668,139	9
4,088,872	83,623	2,268,909	2,411,238	—	4,393,600	4,405,400	10
116,116	3,889	71,255	77,947	—	92,098	92,506	
26,719	341	41,009	41,350	—	35,789	35,789	11
237,100	6,210	276,061	283,191	10,675	3,84,272	395,047	12
9,090,687	7,634	7,420,149	7,434,210	2,382	6,536,088	6,555,810	13
16,634	—	14,243	16,186	—	6,758	7,108	14
16,069	101	6,728	6,929	970	9,701	11,013	15
1,842	14	762	792	186	1,227	1,491	
125,619	1,807,146	795,029	2,689,036	4,809	1,660	24,998	16
11,519	213,207	83,523	305,933	481	207	2,980	
9,339,382	208,073	15,455,340	18,355,975	4,909,495	7,256,991	13,247,834	17
666,941	12,075	945,189	1,181,300	258,448	423,724	770,566	
1,631,117	—	2,373,267	2,373,267	—	1,657,111	1,657,111	18
1,337,325	—	1,904,211	1,904,211	—	1,190,860	1,190,860	
240,358	35,488	64,213	228,126	145,882	71,408	218,625	19
247,143	40,146	67,536	239,638	156,925	80,470	240,500	
366,931	91,121	294,450	441,587	112,305	200,368	330,675	20
137,688	—	265,332	265,332	—	180,828	180,828	21
2,348,750	10,000	946,410	1,039,872	—	930,859	1,024,584	22
157,987	700	59,794	64,842	—	65,789	71,569	



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>II. Animals and their produce—con.</b>					
	Other animal products—con.					
1	Wool..... lb.	697,390	278,342	976,606	448,957	2,382,803
	\$	123,087	70,168	193,500	93,330	552,610
2	All other.....	24,909	72,146	103,395	21,574	97,840
	<b>Total other animal products.....</b>	<b>23,404,016</b>	<b>11,035,051</b>	<b>35,570,980</b>	<b>21,919,055</b>	<b>14,649,725</b>
	<b>III. Fisheries produce—totals.....</b>	<b>3,946,471</b>	<b>5,747,688</b>	<b>16,336,721</b>	<b>7,008,888</b>	<b>6,852,009</b>
3	Codfish, including haddock, ling and pollock, fresh... lb.	—	307,367	309,367	—	2,052,064
	\$	—	14,419	14,509	—	66,149
4	Codfish, dry salted.....cwt.	21,158	128,582	705,246	25,073	198,833
	\$	72,698	784,653	4,301,644	92,511	1,131,347
5	Codfish, wet salted and pickled.....cwt.	1,193	11,152	12,701	—	16,828
	\$	3,205	41,955	47,118	—	66,252
6	Codfish, smoked lb.	—	—	—	—	—
	\$	—	—	—	—	—
7	Codfish tongues and sounds... lb.	—	bbl. 2,073	bbl. 2,078	—	197,105
	\$	—	53,283	53,550	—	34,772
	<b>Total codfish</b>	<b>75,903</b>	<b>894,310</b>	<b>4,416,621</b>	<b>92,511</b>	<b>1,298,520</b>
8	Halibut, fresh.. lb.	200	2,901,727	2,902,899	326,410	4,278,312
	\$	10	147,297	147,343	18,802	262,939
9	Halibut, pickled bbl.	—	—	—	4	1
	\$	—	—	—	20	4
	<b>Total halibut</b>	<b>10</b>	<b>147,297</b>	<b>147,343</b>	<b>18,822</b>	<b>262,943</b>
10	Herring, fresh or frozen..... lb.	10,000	27,169,886	27,572,036	—	10,283,574
	\$	100	201,406	204,571	—	141,146
11	Herring, pickled. bbl.	209	42,096	231,430	1,499	57,960
	\$	1,427	89,041	610,291	6,704	144,964
12	Herring, canned. lb.	—	34,383	34,653	—	32,450
	\$	—	1,728	1,755	—	1,815
13	Herring, smoked lb.	29,130	1,407,576	3,258,231	29,460	2,339,120
	\$	905	36,928	91,846	768	54,337
	<b>Total herring..</b>	<b>2,432</b>	<b>329,103</b>	<b>908,463</b>	<b>7,472</b>	<b>342,262</b>

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,841,184	560	5,657,123	5,659,970	155	4,539,795	4,546,121	1
648,675	125	1,359,003	1,359,741	50	1,495,472	1,497,684	2
125,763	1,803	87,270	90,373	3,842	58,920	63,512	
38,079,184	21,619,391	14,743,824	37,391,810	30,664,039	14,725,103	46,291,616	
20,623,560	5,448,902	8,521,901	19,687,068	6,731,794	8,867,139	22,377,977	
2,052,064	300	3,402,657	3,403,157	—	2,574,900	2,574,900	3
66,149	9	110,984	111,004	—	109,762	109,762	
746,482	12,411	244,334	659,903	33,716	263,472	864,573	4
4,564,731	54,134	1,357,079	4,121,962	171,965	1,440,573	5,418,039	
18,854	14,360	82,681	101,603	7,028	118,316	127,015	5
76,359	54,000	314,200	397,886	24,400	408,668	438,006	
—	—	—	—	127,296	1,733,687	1,880,154	6
—	—	—	—	7,019	98,238	106,589	
198,535	—	137,723	138,723	—	235,789	236,009	7
34,872	—	30,725	30,786	—	49,750	49,765	
4,742,102	108,143	1,812,988	4,661,638	203,384	2,106,991	6,122,161	
4,610,435	194,000	7,071,875	7,270,514	1,627,700	5,859,100	7,499,700	8
282,304	14,300	437,148	451,912	147,326	398,450	546,950	
5	—	163	163	—	213	213	9
24	—	2,296	2,296	—	2,742	2,742	
282,328	14,300	439,444	454,208	147,326	401,192	549,692	
10,662,576	—	29,735,473	30,725,723	—	31,229,300	31,267,400	10
143,116	—	492,896	506,536	—	330,438	330,838	
342,147	30,651	45,508	331,056	—	74,403	201,024	11
793,401	30,656	167,131	821,252	—	389,291	760,292	
32,640	59,046	405	619,934	46,500	72,964	1,036,923	12
1,834	8,500	17	53,338	6,000	5,665	103,512	
3,606,225	4,950	3,811,052	4,193,419	64,700	2,339,368	2,965,974	13
89,931	256	129,079	141,963	2,631	165,337	186,475	
1,028,282	39,412	789,123	1,523,089	8,631	890,731	1,381,117	

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>III. Fisheries produce—con.</b>					
1	Lobsters, fresh.. lb.	162 <sup>1</sup>	39,178 <sup>1</sup>	39,340 <sup>1</sup>	—	4,943,930
	\$	3,150	625,881	629,031	—	707,486
2	Lobsters, canned lb.	2,824,057	2,415,505	9,249,796	2,875,206	2,273,849
	\$	883,120	852,993	3,048,798	1,010,367	808,296
	<b>Total lobsters. "</b>	<b>886,270</b>	<b>1,478,874</b>	<b>3,677,829</b>	<b>1,010,367</b>	<b>1,515,782</b>
3	Mackerel, fresh.. lb.	—	3,118,541	3,118,541	—	4,023,944
	\$	—	175,488	175,488	—	216,307
4	Mackerel, pickled bbl.	—	9,210	13,867	—	22,728
	\$	—	123,204	177,276	—	272,665
	<b>Total mackerel "</b>	<b>—</b>	<b>298,692</b>	<b>352,764</b>	<b>—</b>	<b>488,972</b>
5	Oysters..... "	504	5,761	6,457	421	3,516
6	Salmon, fresh... lb.	658,550	1,762,523	2,637,166	1,095,924	3,148,401
	\$	58,934	171,581	250,200	127,356	219,994
7	Salmon, smoked. lb.	—	1,781	1,881	38,496	5,954
	\$	—	202	216	6,416	615
8	Salmon, canned. lb.	15,999,137	11,221	23,001,532	48,862,562	1,181,205
	\$	2,605,344	1,964	3,484,110	5,436,727	115,360
9	Salmon, dog..... lb.	—	510,918	8,017,075	—	238,702
	\$	—	8,679	120,125	—	3,805
10	Salmon, pickled. bbl.	220	1,343	7,860	66	4,149
	\$	4,400	26,131	173,326	1,063	90,376
	<b>Total salmon.. "</b>	<b>2,668,678</b>	<b>208,557</b>	<b>4,027,977</b>	<b>5,571,562</b>	<b>430,150</b>
11	Salmon or lake trout..... lb.	—	264,771	264,771	—	711,000
	\$	—	14,614	14,614	—	38,982
12	Sea fish, other, fresh..... lb.	—	8,306,442	8,306,622	—	1,953,457
	\$	—	486,257	486,284	—	95,819
13	Sea fish, other, pickled..... bbl.	—	3,124	14,739	—	10,173
	\$	—	17,597	70,491	—	62,443
14	Sea fish, other, preserved..... lb.	23,556	1,522,022	2,602,586	229,657	2,356,346
	\$	2,854	73,979	102,983	23,358	107,510
	<b>Total sea fish, other..... "</b>	<b>2,854</b>	<b>577,833</b>	<b>659,758</b>	<b>23,358</b>	<b>265,772</b>
15	Smelts..... lb.	—	—	—	—	6,028,034
	\$	—	—	—	—	332,792
16	Fish, bait and clams..... bbl.	—	67,347	67,352	18	85,849
	\$	—	94,451	94,846	112	140,452

<sup>1</sup> Bbl.

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
4,943,930	—	5,500,586	5,500,586	—	6,278,376	6,278,376	1
707,486	—	849,368	849,368	—	934,522	934,522	
8,271,662	2,796,102	2,268,838	7,518,741	3,662,148	1,920,601	8,339,903	2
2,983,987	1,123,691	892,442	3,013,782	1,236,278	533,072	2,672,179	
<b>3,691,473</b>	<b>1,123,691</b>	<b>1,741,810</b>	<b>3,863,150</b>	<b>1,236,278</b>	<b>1,467,594</b>	<b>3,606,701</b>	
4,047,121	—	3,229,558	3,229,558	—	4,583,600	4,583,600	3
216,516	—	156,487	156,487	—	220,664	220,664	
29,444	—	19,691	27,776	7	25,612	33,642	4
343,692	—	219,967	299,208	91	329,624	410,199	
<b>560,208</b>	<b>—</b>	<b>376,454</b>	<b>455,695</b>	<b>91</b>	<b>550,288</b>	<b>630,863</b>	
4,060	194	6,511	6,915	158	3,066	3,351	5
4,432,562	854,429	4,688,580	5,569,545	1,496,000	3,127,700	4,644,400	6
364,564	92,023	292,559	387,543	183,621	274,504	460,737	
45,100	100	1,852	2,160	—	2,786	2,816	7
7,116	10	271	313	—	300	304	
61,097,424	23,385,101	274,745	34,655,108	35,225,051	18,725	49,142,882	8
6,631,437	4,018,304	17,216	4,948,723	4,930,625	2,584	6,306,056	
3,403,658	—	5,523,710	6,312,230	—	20,545,600	20,545,600	9
42,193	—	44,638	53,667	—	224,893	224,893	
48,058	43	8,126	40,692	793	5,765	13,704	10
372,019	471	163,196	306,438	8,824	97,873	145,101	
<b>7,417,329</b>	<b>4,110,808</b>	<b>517,880</b>	<b>5,696,684</b>	<b>5,123,070</b>	<b>600,154</b>	<b>7,137,091</b>	
712,045	—	1,360,875	1,360,875	—	2,106,000	2,106,000	11
39,035	—	76,947	76,947	—	119,787	119,787	
1,960,857	1,800	1,615,684	1,619,084	4,700	2,102,100	2,117,000	12
96,109	36	81,579	81,684	129	130,909	131,663	
21,598	261	2,336	11,867	5	10,191	22,962	13
113,642	979	20,656	68,058	32	35,506	91,589	
3,088,747	115,150	1,566,140	1,726,892	5,168	284,215	314,998	14
145,144	22,968	92,145	118,284	260	24,670	26,295	
<b>354,895</b>	<b>23,983</b>	<b>194,380</b>	<b>268,026</b>	<b>421</b>	<b>191,085</b>	<b>249,547</b>	
6,028,034	—	7,073,036	7,073,036	20	5,797,100	5,801,400	15
332,792	—	427,873	427,873	280	361,231	361,669	
85,868	250	28,894	29,382	—	8,028	9,825	16
140,567	1,750	65,316	67,733	—	17,484	19,331	



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>III. Fisheries produce—con.</b>					
1	Fish, all other, fresh..... \$	—	1,318,868	1,318,868	—	1,476,666
2	Fish, all other, pickled..... bbl.	—	1,239	1,297	—	561
	\$	—	13,287	13,962	—	6,436
3	Fish oil, cod.... gal.	8,629	102,296	150,358	28,734	335,177
	\$	3,652	33,290	51,813	9,531	100,457
4	Fish oil, seal.... gal.	28,448	—	30,148	—	858
	\$	10,385	—	10,885	—	269
5	Fish oil, whale.. gal.	600,481	1,017,846	1,618,327	427,571	234,880
	\$	243,604	288,792	532,396	198,169	95,725
6	Fish oil, other... gal.	13,710	80,435	94,145	100,683	29,095
	\$	5,337	27,724	33,061	32,770	8,029
	<b>Total fish oil.. gal.</b>	<b>651,268</b>	<b>1,201,207</b>	<b>1,892,978</b>	<b>556,988</b>	<b>600,010</b>
	\$	<b>262,978</b>	<b>349,806</b>	<b>628,155</b>	<b>240,470</b>	<b>204,480</b>
7	Furs or skins, the produce of fish or marine animals "	13,302	10,267	28,044	42,029	3,174
8	Other articles of the fisheries.. "	33,540	5,968	41,380	1,764	41,110
	<b>IV. Forest produce—totals..... \$</b>	<b>10,103,469</b>	<b>29,951,880</b>	<b>43,255,060</b>	<b>10,647,123</b>	<b>29,304,546</b>
9	Ashes, pot and pearl..... bbl.	465	44	550	403	15
	\$	21,617	1,976	25,437	17,965	553
10	Ashes, other.... "	—	36,703	36,703	—	29,644
	<b>Total ashes... "</b>	<b>21,617</b>	<b>38,679</b>	<b>62,140</b>	<b>17,965</b>	<b>30,197</b>
11	Bark for tanning cord \$	—	5,802	5,802	—	4,833
	\$	—	29,842	29,842	—	25,577
12	Firewood.....cord \$	—	16,434	16,700	—	16,308
	\$	—	48,523	49,419	—	49,272
13	Knees and futtocks NO.	—	14,139	14,139	—	30,526
	\$	—	20,597	20,597	—	33,404
14	Lathwood.....cord \$	—	895	895	—	72
	\$	—	3,392	3,392	—	258
	<b>Logs—</b>					
15	Elm..... "	9,515	5,125	14,640	31,211	2,510
16	Hemlock..... "	—	7,404	7,539	—	11,276
17	Oak..... "	—	—	—	—	811
18	Pine..... "	270	24,101	24,371	—	62,743
19	Spruce..... "	108	45,260	45,874	—	95,483
20	All other..... "	64,510	868,740	936,032	76,525	537,683
	<b>Total logs... "</b>	<b>74,403</b>	<b>950,630</b>	<b>1,028,456</b>	<b>107,736</b>	<b>710,506</b>

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,477,027	—	1,735,943	1,735,943	—	1,707,146	1,707,172	1
700	—	4,396	4,441	—	1,914	1,914	2
8,381	—	18,770	19,058	—	11,920	11,920	
353,517	4,248	581,928	596,137	4,880	514,352	532,782	3
112,790	1,275	185,478	188,798	2,072	214,329	221,915	
858	3,120	6,566	9,686	3,570	4,977	8,547	4
269	312	2,114	2,426	1,609	1,725	3,334	
662,451	25,633	172,870	334,223	—	319,076	319,076	5
293,894	8,934	70,717	144,388	—	134,366	134,366	
129,778	35,795	14,741	50,636	—	50,425	51,293	6
40,799	8,572	4,342	12,994	—	15,851	16,281	
1,166,604	68,796	776,105	990,682	8,450	888,830	911,698	
447,752	19,093	262,651	348,606	3,681	366,271	375,896	
45,203	7,528	5,042	12,574	6,717	12,373	19,156	7
52,126	—	50,769	68,947	1,757	59,826	80,923	8
42,792,137	9,914,548	31,030,873	42,650,683	14,147,250	34,619,722	51,271,400	
434	436	1	453	308	173	481	9
19,218	22,081	47	22,685	21,713	3,168	24,881	
29,644	—	34,359	34,359	—	43,549	43,549	10
48,862	22,081	34,406	57,044	21,713	46,717	62,430	
4,833	—	5,675	5,675	—	4,440	4,440	11
25,577	—	42,370	42,370	—	22,239	22,239	
16,403	—	23,133	23,296	—	17,286	17,386	12
49,608	—	80,257	80,776	—	55,717	56,088	
30,526	—	11,344	11,364	—	12,190	12,190	13
33,404	—	15,844	15,877	—	10,629	10,629	
72	—	12	12	—	584	584	14
258	—	42	42	—	2,920	2,920	
33,721	8,132	5,626	13,758	2,282	2,748	5,030	15
11,276	—	63,822	63,822	—	89,687	89,687	16
811	—	238	238	—	400	400	17
62,743	—	100,715	100,715	—	30,540	30,540	18
95,483	—	490,738	491,209	—	185,787	186,047	19
614,355	17,953	571,238	589,191	45,172	722,043	767,295	20
818,389	26,085	1,232,377	1,258,933	47,454	1,031,205	1,078,999	

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>IV. Forest produce— con.</b>					
	<b>Lumber—</b>					
1	Basswood.....M. ft.	340	581	1,009	117	510
	\$	9,418	12,074	24,595	3,187	9,345
2	Battens....."	—	—	—	3,542	—
3	Deals, pine.st.hund.	17,507	1,956	19,956	19,000	1,061
	\$	1,285,863	78,355	1,386,708	1,322,326	61,616
4	Deals, spruce and other st. hund.	114,790	18,115	134,835	136,147	11,876
	\$	4,683,821	743,561	5,513,543	5,947,348	513,883
5	Deal ends..st. hund.	4,403	1,080	6,086	6,179	536
	\$	176,449	30,141	228,399	249,088	30,408
6	Laths..... M.	7,939	680,372	700,789	2,863	597,420
	\$	21,261	1,743,248	1,789,969	8,055	1,669,547
7	Palings and pick- ets..... \$	30,540	171,782	215,160	15,850	197,364
8	Planks and boards.....M. ft.	81,616	926,538	1,148,940	74,571	802,685
	\$	1,825,549	16,247,450	20,839,098	1,772,005	15,249,032
9	Scantling.....M. ft.	24,142	76,875	106,312	27,282	56,628
	\$	278,306	1,079,107	1,454,238	367,335	847,290
10	Shingles..... M.	82	542,311	564,019	52	662,512
	\$	160	1,374,569	1,409,116	292	1,738,879
11	Shooks, box and other..... "	167,887	19,768	265,042	121,781	22,908
12	Staves and head- ings..... "	19,272	20,128	57,707	12,956	36,511
13	All other lumber "	168,072	76,474	249,514	187,930	71,573
	<b>Total lumber.. "</b>	<b>8,666,608</b>	<b>21,596,657</b>	<b>33,433,089</b>	<b>10,011,695</b>	<b>20,448,356</b>
14	Match blocks... "	2,847	1,710	4,557	—	6,739
15	Masts and spars. NO.	—	91	319	—	57
	\$	—	462	4,624	—	455
16	Piling..... "	—	127,062	130,600	—	175,509
17	Poles, hop, hoop, telegraph and other..... "	750	65,148	66,908	1,347	120,750
18	Shingle bolts, pine or cedar.....cord	—	7,853	7,853	—	13,582
	\$	—	27,769	27,769	—	47,132
19	Posts, sleepers and railroad ties.. "	—	219,788	220,043	—	247,996
	<b>Timber, square—</b>					
20	Ash..... "	1,327	—	2,205	3,146	—
21	Birch..... "	221,658	2,363	231,182	122,904	780
22	Elm..... "	76,481	1,571	78,827	73,997	572

## EXPORTS OF CANADA.

10. —Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916 —con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
687	197	926	1,283	205	1,060	1,300	1
14,992	7,195	24,514	38,053	7,013	26,230	34,513	2
5,426	4,379	—	4,379	—	1,646	1,646	3
20,382	13,318	873	14,399	13,329	811	14,508	4
1,408,709	1,073,420	55,951	1,148,738	1,170,784	48,441	1,249,595	5
149,638	126,417	10,988	138,500	171,181	5,673	187,894	6
6,547,854	5,829,977	507,888	6,393,420	8,826,107	263,483	9,677,355	7
7,124	5,767	301	6,582	5,326	115	5,740	8
294,195	241,310	11,041	269,849	212,092	4,022	226,938	9
608,921	777	629,357	635,974	25	787,056	792,855	10
1,699,221	2,104	1,785,507	1,798,219	70	2,236,244	2,246,777	11
227,230	25,153	83,100	114,122	11,198	224,230	238,568	12
999,079	68,348	831,319	975,420	107,918	1,070,644	1,256,289	13
19,514,128	1,580,251	15,978,499	18,921,445	2,188,161	20,132,978	23,880,341	14
87,233	25,817	50,029	76,565	40,546	44,170	93,734	15
1,264,881	381,730	802,338	1,196,559	659,733	713,237	1,535,731	16
689,150	782	1,333,165	1,359,069	—	1,783,963	1,796,473	17
1,775,619	2,475	2,945,159	2,987,764	—	3,619,409	3,644,159	18
189,777	85,618	21,550	158,397	355,114	9,014	460,681	19
70,249	18,106	45,688	77,762	23,034	48,311	85,710	20
260,595	89,662	19,156	108,818	52,239	17,988	70,959	21
33,272,876	9,341,380	22,279,891	32,217,525	13,565,548	27,345,222	43,252,973	22
6,739	923	4,267	5,190	—	5,636	5,636	23
299	—	63	168	—	102	189	24
3,499	—	535	2,416	—	559	1,871	25
176,959	—	170,111	171,758	—	143,391	143,391	26
127,354	—	160,611	162,153	1,600	70,355	72,155	27
13,582	—	7,744	7,769	—	8,665	8,665	28
47,132	—	24,705	24,780	—	29,239	29,239	29
247,996	4,542	148,812	247,862	107,916	72,323	180,252	30
3,414	1,086	—	1,086	2,757	—	2,757	31
133,805	113,874	732	119,386	230,173	—	230,173	32
78,742	95,965	603	98,988	54,471	—	54,471	33



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>IV. Forest produce—con.</b>					
	Timber, square—con.					
1	Oak..... \$	24,541	1,285	25,826	71,835	644
2	Pine, red..... "	64,144	—	64,144	12,150	—
3	Pine, white..... "	937,076	125	940,894	204,482	624
4	All other..... "	12,017	5,853	20,122	19,053	9,304
	<b>Total timber, sq..... "</b>	<b>1,337,244</b>	<b>11,197</b>	<b>1,363,200</b>	<b>507,567</b>	<b>11,924</b>
5	Wood, blocks and other, for pulp. cord \$	—	1,003,594	1,003,594	—	1,089,384
6	Other articles of the forest..... "	—	6,806,447	6,803,445	—	7,388,770
		—	3,979	3,979	813	7,701
	<b>V. Manufactures—totals.....</b>	<b>7,158,746</b>	<b>21,321,458</b>	<b>43,692,708</b>	<b>8,583,540</b>	<b>30,391,764</b>
	Agricultural implements, viz.—					
7	Drills..... NO. \$	—	—	—	626	13
8	Mowing machines.... NO. \$	—	—	—	34,781	760
		1,747	2	18,935	878	3
9	Reapers..... NO. \$	60,291	80	665,551	30,270	140
		103	—	4,215	10	—
10	Harvesters and binders..... NO. \$	6,070	—	247,304	660	—
		1,998	47	16,024	2,278	2
11	Ploughs..... NO. \$	209,289	1,831	1,718,052	233,131	380
		596	211	15,197	621	360
12	Harrows..... NO. \$	20,017	11,427	479,828	8,400	9,062
		226	67	4,247	721	126
13	Hay rakes.... NO. \$	2,564	750	104,022	8,345	5,585
		131	30	6,155	572	—
14	Seeders..... NO. \$	2,914	1,110	137,150	13,402	—
		—	70	70	—	21
15	Threshing machines.... NO. \$	—	7,040	7,040	—	1,140
		—	—	714	—	—
16	Cultivators... NO. \$	—	—	213,265	—	—
		471	79	5,342	421	195
17	All other..... " \$	9,141	2,001	111,091	10,526	4,643
18	Parts of..... " \$	79,280	13,344	2,022,981	71,705	32,050
		47,440	16,494	659,540	77,347	39,289
	<b>Total..... "</b>	<b>437,006</b>	<b>54,087</b>	<b>6,365,824</b>	<b>488,367</b>	<b>33,049</b>

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
72,479	71,578	1,673	73,251	26,444	2,610	29,054	1
12,150	—	—	—	2,952	525	3,477	2
205,106	236,656	—	237,220	129,529	2,408	131,937	3
30,499	75	2,938	3,024	16,693	9,847	26,540	4
536,195	519,234	5,946	532,955	463,019	15,390	478,409	
1,089,384	—	1,010,914	1,010,914	—	879,934	879,934	5
7,388,770	—	6,817,311	6,817,311	—	5,743,847	5,743,847	
8,519	303	13,388	13,691	—	24,322	24,322	6
57,443,452	24,848,359	42,164,753	85,539,501	148,477,303	58,202,141	242,034,998	
10,904	748	39	3,996	2,239	62	7,409	7
663,437	36,642	2,704	260,318	118,663	4,983	495,304	
26,503	1,258	3	7,512	1,093	327	6,220	8
903,889	42,885	195	260,709	38,746	11,932	222,920	
5,293	4	2	902	—	—	471	9
301,610	220	111	48,301	—	—	27,364	
29,276	1,442	59	6,799	4,539	322	9,960	10
3,068,797	146,059	7,312	695,858	469,479	34,534	1,056,896	
14,331	502	532	13,573	1,723	983	15,248	11
408,883	9,766	15,987	339,301	38,569	22,064	323,301	
7,329	380	584	6,164	915	394	4,279	12
126,853	4,738	18,993	92,691	10,257	17,368	79,813	
9,764	317	197	2,055	361	1	2,409	13
293,788	6,427	9,867	47,773	8,250	57	54,989	
21	—	10	11	—	3	3	14
1,140	—	659	670	—	185	185	
1,928	—	285	2,043	—	17	923	15
712,270	—	321,611	866,993	—	14,358	500,715	
7,180	183	210	5,831	381	243	6,327	16
182,953	4,641	6,023	143,807	10,376	6,978	177,431	
388,956	49,982	78,232	263,776	169,126	55,520	343,635	17
879,214	53,524	51,891	648,892	97,608	116,164	571,797	18
7,931,790	354,884	513,585	3,669,089	961,074	284,143	3,854,350	

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Asbestos, mfs. of \$	—	—	—	7,256	14,754
2	Books, pamphlets, maps, etc. "	148,086	191,413	377,686	208,247	232,061
3	Biscuits and bread.....cwt.	21	376	2,296	—	332
	\$	138	684	14,996	—	1,989
4	Binder twine.... lb.	—	9,698,561	10,248,031	9,020	3,641,850
	\$	—	831,510	869,028	735	364,204
5	Bricks..... M.	—	663	706	1	1,032
	\$	—	8,762	9,251	5	8,172
6	Brooms and whisks "	7,717	334	38,348	4,680	211
7	Buttons..... "	23	513	536	80	746
8	Cartridges, gun, rifle, etc..... "	6,768	1,708	11,239	7,432	4,094
9	Charcoal..... "	—	4,970	11,338	—	3,073
10	Cement..... "	—	1,306	2,861	—	1,061
11	Clay, mfs. of.... "	100	3,764	3,864	7,350	24,874
12	Clothing and wearing apparel "	59,447	140,677	316,709	99,019	150,952
13	Coke..... ton	—	61,990	62,028	—	73,285
	\$	—	269,133	269,383	—	332,620
14	Cordage, rope and twine..... "	—	7,112	31,282	1,129	9,807
15	Cotton fabrics... yd.	10,722	10,533	264,238	8,260	118,192
	\$	2,675	2,032	53,883	876	7,870
16	Cottons, other.. "	3,511	12,179	23,675	6,000	8,329
17	Cotton waste.... lb.	249,353	876,273	1,724,713	3,661	482,251
	\$	9,107	25,849	46,993	289	21,356
18	Drugs, chemicals, medicines, etc. "	521,566	542,179	1,746,528	440,082	619,066
19	Dye stuffs..... "	—	10,791	14,087	—	2,629
20	Electrical apparatus..... "	8,488	40,178	62,756	25,183	66,849
21	Electrotypes.... "	477	3,077	3,774	64	4,344
22	Extract of hemlock bark..... bbl.	1,544	—	2,469	1,267	11
	\$	16,520	—	24,480	15,170	309
23	Explosives and fulminates, n.e.s..... "	5,387	27,383	101,090	7,900	96,492
24	Fertilizers..... "	25,441	1,592,185	1,677,703	1,405	2,436,765
25	Fur manufactures "	25,266	35,207	69,768	21,597	23,992
26	Glass and glassware, n.e.s.. "	5,135	8,668	25,013	8,819	13,586
27	Grindstones, manufactured.. "	332	24,454	27,118	—	54,103
28	Guns, rifles, etc. "	7,667	6,821	26,387	10,218	11,550
29	Gypsum or plaster, ground "	—	7,125	7,552	—	12,763
30	Hats and caps... "	744	3,310	20,633	1,270	3,353

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
98,274	37,169	13,254	78,329	95,518	4,226	118,287	1
496,579	133,971	237,915	420,026	73,267	214,016	317,859	2
2,029	578	370	3,032	1,631	236	6,058	3
16,227	4,430	2,805	26,452	14,316	2,035	51,698	4
4,690,820	1,550,610	9,440,818	12,281,708	3,061,643	7,569,325	17,336,927	5
453,530	105,611	872,592	1,077,021	228,966	710,727	1,529,540	6
1,048	—	1,431	1,482	—	971	1,074	7
8,454	—	11,542	12,020	—	7,301	8,506	8
16,989	1,271	—	14,471	2,455	60	16,071	9
1,144	5	339	394	27	257	7,079	10
13,353	116,014	97,718	221,137	73,071,562	15,451	73,904,584	11
3,073	—	1,991	3,878	9	25,458	25,467	12
2,393	—	445	1,065	—	1,635	5,139	13
36,628	77	17,319	17,396	—	33,707	34,649	14
446,524	6,288,694	120,752	7,344,338	8,171,865	66,465	9,148,878	15
73,299	—	52,874	52,874	—	43,770	43,790	16
332,685	—	240,818	240,818	—	196,114	196,214	17
60,127	1,220	16,530	47,180	16,773	27,824	91,665	18
356,081	813,894	14,442	1,222,964	1,710,927	34,949	2,418,857	19
82,636	158,649	3,972	282,828	415,127	8,788	614,739	20
24,591	33,275	69,799	151,343	1,089,693	27,670	1,161,556	21
511,399	231,625	1,369,448	1,606,881	—	1,042,914	1,049,775	22
22,969	12,403	60,132	72,736	—	39,352	39,551	23
1,688,778	463,127	2,446,363	3,474,232	758,809	4,569,668	6,353,462	24
6,583	—	21,609	24,734	—	17,951	26,724	25
106,816	17,012	49,417	97,890	141,666	52,270	573,044	26
4,719	66	6,080	6,287	—	4,325	4,519	27
1,969	2,371	8	2,550	4,840	—	5,486	28
23,771	28,512	248	30,812	58,170	—	65,677	29
228,312	51,543	158,293	265,578	6,570,075	252,713	7,080,926	30
2,539,759	877	1,996,591	2,163,917	3,557	2,539,285	2,705,069	31
53,070	17,097	8,537	29,808	19,282	10,560	37,192	32
32,453	14,016	15,332	55,553	92,103	12,582	133,743	33
54,584	—	45,515	45,889	—	19,926	19,971	34
130,568	153,224	32,321	211,324	575,628	37,481	617,795	35
14,225	216	24,039	31,878	—	71,541	92,446	36
21,521	917	1,947	16,203	118,791	3,264	134,912	37



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Household effects, n.e.s. .... \$	199,759	1,940,713	2,212,633	264,047	2,480,156
2	Ice. .... "	—	7,407	7,797	—	15,497
3	India rubber, mfs. of. .... "	16,665	89,784	272,346	18,778	52,295
4	India rubber waste. .... lb.	—	—	—	127,495	4,931,964
	Iron and steel and mfs. of—				6,874	406,718
5	Castings, n.e.s. \$	788	33,446	40,608	1,654	39,664
6	Ferro silicon and ferro compounds.. ton	—	—	—	—	—
	\$	—	—	—	—	—
7	Gas buoys and parts of. .... "	16,014	303	87,916	2,000	236
8	Hardware and tools. .... "	30,979	45,853	144,405	29,868	83,024
9	Machinery.... "	46,191	267,382	535,442	50,494	200,542
10	Pig iron. .... ton	76	6,399	6,994	99	8,562
	\$	1,860	313,761	330,002	2,665	326,982
11	Scrap iron or steel. .... cwt.	5,747	478,692	486,391	21,714	802,499
	\$	2,582	232,773	236,181	15,940	423,001
12	Sewing mach.. no.	110	508	22,532	19	488
	\$	2,263	14,649	249,971	800	13,953
13	Stoves. .... no.	15	119	1,465	11	127
	\$	537	1,975	24,963	427	3,884
14	Typewriters... no.	2,053	127	3,647	2,147	186
	\$	152,555	5,600	261,671	142,042	10,794
15	Wire and wire nails. .... cwt.	—	—	—	—	—
	\$	—	—	—	—	—
16	All other. .... "	76,506	339,518	933,754	195,162	233,385
	<b>Total. .... "</b>	<b>330,275</b>	<b>1,255,260</b>	<b>2,844,913</b>	<b>441,052</b>	<b>1,335,465</b>
17	Jewellers' sweepings. .... "	42,511	121,783	164,294	26,899	156,353
18	Jewellery, all kinds. .... "	24,335	30,960	117,391	26,772	15,865
19	Junk. .... cwt.	79,122	321,066	423,457	9,032 <sup>1</sup>	89,714 <sup>1</sup>
	\$	337,796	1,348,675	1,706,787	19,048 <sup>1</sup>	181,825 <sup>1</sup>
20	Lamps and lanterns. .... "	3,509	1,616	10,737	3,101	3,131
	Leather—					
21	Boots and shoes. .... "	1,733	15,611	42,177	3,064	60,378
22	Harness and saddlery .... "	735	5,819	13,259	1,702	16,966

<sup>1</sup>Not including metallic and rubber junk.

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,841,408	356,918	3,211,798	3,681,709	413,933	3,750,722	4,222,234	1
15,922	—	7,240	7,515	—	9,384	9,919	2
272,278	182,843	106,830	446,777	2,043,774	128,090	2,494,609	3
5,061,919	—	4,221,476	4,221,476	60,600	8,718,500	8,779,100	4
413,953	—	276,128	276,128	6,368	580,897	587,265	
46,648	127,522	17,356	148,145	2,391	11,911	18,458	5
—	39	6,631	6,901	5,016	5,782	12,398	6
—	1,900	377,637	398,488	293,309	316,682	729,029	
18,832	1,850	1,700	20,080	—	—	326	7
201,319	141,323	139,267	369,714	585,442	153,767	888,120	8
444,456	55,477	193,299	351,067	256,412	379,971	763,854	9
9,310	—	8,664	10,477	—	19,691	22,350	10
347,347	—	104,444	126,975	—	266,126	307,721	
851,279	17,206	831,208	858,855	—	1,753,238	1,766,634	11
458,800	6,864	522,548	534,946	—	840,542	849,338	
7,055	163	2,522	3,026	505	594	1,715	12
98,648	4,988	24,351	33,244	7,919	14,618	29,300	
1,265	38	3,151	4,225	91	329	1,307	13
20,618	1,488	8,656	24,708	2,026	4,992	19,257	
3,126	1,857	156	2,674	2,900	132	3,349	14
204,502	119,825	8,443	173,211	196,085	11,689	228,710	
—	266,919	4,880	446,909	943,628	29,950	1,792,851	15
—	543,451	9,684	870,319	2,381,149	86,628	4,483,263	
968,074	4,442,511	614,977	7,111,529	29,724,891	2,623,935	41,395,933	16
2,809,244	5,447,199	2,022,362	10,162,426	33,449,624	4,767,861	49,713,309	
185,081	29,661	140,826	170,720	37,697	185,883	223,929	17
113,589	13,811	34,493	80,714	57,534	25,084	139,095	18
99,523 <sup>1</sup>	167 <sup>1</sup>	77,258 <sup>1</sup>	78,508 <sup>1</sup>	738 <sup>1</sup>	35,590 <sup>1</sup>	38,049 <sup>1</sup>	19
203,302 <sup>1</sup>	408 <sup>1</sup>	159,809 <sup>1</sup>	161,221 <sup>1</sup>	332 <sup>1</sup>	74,160 <sup>1</sup>	80,807 <sup>1</sup>	
11,268	5,211	7,081	14,294	25,952	3,013	32,783	20
82,529	32,725	104,188	188,084	88,774	87,531	537,595	21
21,288	1,651,562	123,523	3,981,959	3,806,414	267,051	6,188,426	22

<sup>1</sup>Not including metallic and rubber junk.

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Leather—con.					
1	Leather, n.e.s. lb.	1,040,331	119,364	1,203,641	1,429,401	1,061,503
	\$	239,575	21,047	276,107	318,796	266,211
2	Sole..... lb.	3,067,085	197,537	3,589,599	4,674,579	2,884,422
	\$	823,050	53,307	974,497	1,387,792	817,116
3	Upper..... lb.	356,799	2,780	417,004	129,068	209,426
	\$	82,814	3,046	102,869	32,378	71,843
4	Other mfs. of.. "	3,114	4,302	14,674	3,015	36,169
	<b>Total leather.. "</b>	<b>1,151,021</b>	<b>103,132</b>	<b>1,423,583</b>	<b>1,746,747</b>	<b>1,268,683</b>
5	Lime..... "	—	21,438	29,999	—	24,502
	Liquors—					
6	Ale and beer.. gal.	—	2,313	2,470	53	9,631
	\$	—	1,039	1,095	30	3,227
7	Gin..... gal.	—	23	23	588	2,550
	\$	—	50	50	562	1,943
8	Whiskey..... gal.	7,955	266,690	329,387	10,329	273,153
	\$	24,383	833,636	1,026,920	29,719	841,043
9	Wines..... gal.	481	808	3,782	429	5,512
	\$	499	2,933	6,075	529	3,095
10	Wood alcohol. gal.	462,213	238	839,498	155,82	—
	\$	132,737	110	309,625	77,330	—
11	Other spirits, n.e.s..... gal.	—	3,613	3,728	—	438
	\$	—	4,693	4,881	—	787
	<b>Total liquors.. gal.</b>	<b>470,649</b>	<b>273,685</b>	<b>1,178,886</b>	<b>166,873</b>	<b>291,284</b>
	\$	<b>157,619</b>	<b>842,461</b>	<b>1,348,646</b>	<b>108,170</b>	<b>850,095</b>
	Metals—					
12	Aluminum, in bars, blocks, etc..... cwt.	41,979	78,634	150,227	43,214	55,974
	\$	459,150	844,663	1,631,287	605,862	821,448
13	Aluminum, mfs. of..... "	—	14,365	14,365	17	6,167
14	Brass, old and scrap..... cwt.	—	—	—	6,561	33,566
	\$	—	—	—	67,380	303,439
15	Copper, old and scrap..... cwt.	—	—	—	6,391	22,241
	\$	—	—	—	87,307	283,127
16	Metallic shingles and laths and corrugated roofing..... "	—	—	—	113,221	537
17	Metals, n.o.p... "	62,375	45,744	215,467	172,944	169,676

## EXPORTS OF CANADA.

10. — Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,600,577	418,275	2,535,302	3,013,799	—	—	—	1
617,179	124,796	872,725	1,014,490	49,137	363,622	425,850	2
7,973,368	7,544,817	5,932,825	13,758,727	5,035,482	8,437,114	14,315,538	3
2,336,491	2,294,902	1,701,704	4,096,081	1,582,389	2,408,142	4,303,778	4
367,197	896,389	1,195,390	2,179,021	1,601,292	932,220	2,697,626	5
113,916	531,927	851,625	1,450,910	1,379,933	915,427	2,378,367	6
42,538	33,768	40,445	75,765	709,181	30,635	741,306	7
3,213,941	4,669,686	3,694,210	10,867,239	7,698,328	4,972,408	14,575,322	8
28,610	—	11,202	17,137	—	22,608	26,320	9
10,287	36	4,951	11,215	—	2,297	12,839	10
3,530	16	1,707	4,401	—	1,196	7,667	11
2,091	—	43	147	—	909	909	12
2,507	—	61	133	—	769	769	13
337,357	7,385	234,535	282,867	243,578	256,768	540,352	14
1,038,365	22,142	709,036	860,932	295,697	732,366	1,153,796	15
6,985	568	1,058	2,779	296	861	3,249	16
4,408	392	1,995	3,298	346	2,703	5,016	17
457,787	125,405	221,831	500,338	255,076	37,079	406,730	18
256,869	74,828	58,538	231,283	148,843	5,832	229,978	19
433	—	952	985	2,290	—	54,604	20
787	—	1,506	1,566	2,510	—	34,685	21
815,915	133,394	463,370	798,331	501,240	297,914	1,018,683	22
1,306,466	97,378	772,873	1,101,613	447,396	742,869	1,431,911	23
130,845	51,755	73,350	140,441	126,456	67,616	196,424	24
1,885,074	810,227	1,264,109	2,318,800	2,358,864	1,281,067	3,682,351	25
6,599	448,127	4,581	452,708	71,320	51,430	173,387	26
40,204	5,041	22,301	27,342	1,107	214,654	215,761	27
371,549	54,282	204,249	258,531	13,800	2,854,532	2,868,332	28
29,001	3,655	16,948	21,119	826	56,613	57,439	29
377,012	45,258	189,793	241,050	13,400	977,574	990,974	30
161,404	54,308	1,489	88,348	14,286	18,222	49,962	31
454,318	157,350	218,686	402,906	1,677,852	818,048	2,563,922	32



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—CON.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Musical instruments—					
1	Organs..... NO.	1,726	28	2,794	1,581	34
	\$	114,677	12,405	189,824	91,236	16,393
2	Pianos..... NO.	49	148	237	41	114
	\$	13,420	34,895	56,283	13,428	28,280
3	Other and parts of..... “	3,624	3,411	7,905	58,239	8,703
	<b>Total..... “</b>	<b>131,721</b>	<b>50,711</b>	<b>254,012</b>	<b>162,903</b>	<b>53,376</b>
4	Oil cake..... cwt.	324,136	7,630	691,280	322,350	42,792
	\$	509,509	12,781	1,074,701	444,349	54,140
5	Oil, n.e.s..... gal.	17,805	1,445,977	1,741,621	16,602	1,324,016
	\$	15,454	144,576	215,202	10,347	171,292
	Paper—					
6	Paper, wall... roll.	480	54,119	746,705	1,000	3,850
	\$	155	6,615	59,174	200	622
7	Paper, felt.... roll.	127	8,595	54,126	368	8,688
	\$	148	3,240	38,052	499	13,221
8	Paper, wrapping lb.	—	2,864,733	2,965,043	37,269	17,202,643
	\$	—	96,922	100,612	1,053	578,595
9	Paper, printing lb.	10,167,560	217,606,801	293,583,303	5,969,300	506,124,800
	\$	202,215	4,242,298	5,692,126	122,207	9,818,539
10	Paper, n.e.s... “	381,905	18,006	434,846	381,717	149,087
	<b>Total paper... “</b>	<b>584,423</b>	<b>4,367,081</b>	<b>6,324,810</b>	<b>505,676</b>	<b>10,560,064</b>
11	Paints and varnishes..... “	30,533	12,228	128,520	22,371	14,960
12	Paintings, all kinds “	23,466	133,992	162,878	71,733	58,488
13	Plumbago, mfs. of “	3,227	40,984	52,403	7,210	32,088
14	Photographs.... “	778	9,097	10,053	1,396	7,026
15	Rags..... lb.	4,589,800	41,899,400	46,602,000	4,546,500	49,749,000
	\$	256,637	410,403	675,068	287,837	514,179
16	Ships sold to other countries..... ton	—	40	2,825	—	374
	\$	—	4,350	107,850	—	21,050
17	Soap..... lb.	20,435	16,413	559,646	92,545	7,423
	\$	1,030	1,437	23,947	9,513	646
18	Starch..... lb.	20,235	400	28,797	132,828	860
	\$	781	21	1,282	6,577	56
19	Stationery..... “	17,044	12,594	70,046	12,326	13,476
20	Stone, granite, marble, etc.,					
	dressed..... “	1	2,736	3,407	550	5,454
21	Sugar, all kinds. lb.	—	450	71,236	—	1,477
	\$	—	27	2,631	—	106
22	Sugar-house syrup gal.	—	183,449	183,759	—	153,520
	\$	—	13,238	13,338	—	10,779
23	Tar..... “	—	19,171	69,969	42	28,515

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,212	699	32	1,093	1,029	35	1,321	1
144,620	39,484	1,810	63,199	63,823	14,404	94,070	2
196	41	156	239	47	140	262	3
51,408	14,828	37,329	61,547	14,085	31,844	59,908	4
86,679	66,771	19,209	100,820	160,476	23,727	201,014	5
282,707	121,083	58,348	225,575	238,384	69,975	354,992	6
604,670	158,720	25,248	279,334	296,459	28,061	353,463	7
832,394	221,482	36,334	392,330	469,321	43,038	583,679	8
1,617,537	4,121	981,789	1,095,044	42,310	4,690,845	4,951,406	9
237,854	1,608	117,741	156,091	20,140	604,355	712,712	10
550,433	—	24,936	783,895	5,300	12,867	764,243	11
43,328	—	2,486	53,916	766	1,231	54,050	12
49,301	8,715	25,484	78,793	—	—	—	13
50,131	22,725	15,113	85,066	63,216	39,082	148,288	14
18,252,017	102,260	9,200,553	13,539,646	3,039,200	7,605,000	15,771,900	15
615,310	2,792	279,111	408,360	91,638	227,900	492,122	16
585,137,460	8,925,206	628,953,000	729,204,706	10,444,800	815,102,800	926,408,000	17
11,386,845	180,598	12,126,982	14,091,662	210,046	15,839,780	17,974,292	18
577,422	386,923	429,793	839,334	542,154	767,297	1,352,518	19
12,675,036	593,038	12,853,485	15,478,338	907,820	16,875,290	20,021,276	20
133,356	70,287	20,705	169,454	204,002	43,817	349,298	21
134,006	13,924	50,858	66,346	4,477	76,759	81,746	22
40,076	8,378	51,960	62,138	2,222	138,658	141,348	23
8,806	1,117	8,643	10,137	436	6,801	7,297	24
54,771,990	5,201,800	60,418,500	65,992,200	3,458,700	48,480,400	52,131,600	25
820,644	388,611	680,969	1,080,769	339,862	549,026	890,808	26
6,080	—	13,237	14,303	—	723	1,505	27
128,493	—	391,500	448,900	—	7,500	44,100	28
445,814	151,080	5,853	584,337	212,198	7,633	687,721	29
27,400	13,927	492	34,118	37,272	750	59,958	30
160,473	58,340	5,650	76,158	104,620	313,300	423,100	31
7,927	1,555	224	2,439	3,731	10,009	14,385	32
67,211	15,262	14,786	63,780	17,570	11,974	74,579	33
7,179	—	1,713	1,832	—	5,754	8,496	34
1,909	—	9,270	12,550	459,394	237	629,274	35
126	—	453	640	22,650	18	31,714	36
153,520	76,718	58,190	134,908	114,850	24,689	139,539	37
10,779	11,582	5,193	16,775	19,537	2,642	22,179	38
35,827	15	36,063	41,736	—	19,465	25,347	39

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Tin, manufactures of..... \$	2,898	51,253	62,100	1,815	46,374
2	Tobacco—					
	Cigars..... M. \$	15	45	61	4	—
		567	1,948	2,538	220	—
3	Cigarettes.... M. \$	2	22	34	—	46
		30	187	302	—	172
4	Stems and cuttings..... lb. \$	10,942	434,963	770,290	15,040	383,201
		1,074	14,873	52,514	1,326	15,256
5	All other, n.e.s. lb. \$	4,244	34,754	45,495	705	5,753
		1,710	8,209	15,859	663	4,450
	<b>Total tobacco. "</b>	<b>3,381</b>	<b>25,217</b>	<b>71,213</b>	<b>2,209</b>	<b>19,878</b>
6	Tow..... cwt. \$	955	730	1,685	—	1,275
		3,720	4,892	8,612	—	3,267
	<b>Vehicles—</b>					
7	Automobiles.. NO. \$	25	122	3,766	291	81
		74,424	190,070	2,284,820	320,407	138,978
8	Automobiles, parts of.... "	9,279	13,564	99,709	1,895	36,341
9	Carriages..... NO. \$	10	92	1,138	16	73
		1,453	5,343	57,146	2,042	7,784
10	Carriages, parts of..... "	426	1,458	64,121	14	1,136
11	Carts..... NO. \$	—	32	383	—	26
		—	1,029	11,003	—	780
12	Wagons..... NO. \$	1	94	119	1	159
		50	5,142	6,184	100	8,549
13	Bicycles..... NO. \$	11	64	92	23	79
		1,605	6,484	9,124	3,135	1,805
14	Bicycles, parts of..... "	983	171	39,768	527	1,382
15	Other vehicles "	608	47,916	51,855	1,460	27,188
16	Vinegar..... gal. \$	—	—	170	—	—
		—	—	35	—	—
	<b>Wood—</b>					
17	Barrels, empty NO. \$	325	16,665	23,493	177	7,713
		629	19,008	28,903	493	8,941
18	Household furniture..... "	23,746	26,111	381,506	35,572	60,319
19	Doors, sashes and blinds.. "	6,693	1,096	11,283	13,400	2,019
20	Matches and match splints. "	164	1,587	2,436	—	—
21	Mouldings, trimmings and other household furnishings "	—	—	1,767	378	1,057

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
53,683	79,733	12,656	98,870	78,583	3,711	96,354	1
32	1	2	18	3	1	14	2
1,373	25	33	762	108	15	523	3
51	118	7	185	296,417	6	296,525	3
203	1,351	68	1,754	717,924	77	718,491	3
767,626	—	69,018	293,963	—	370,693	478,723	4
55,685	—	6,120	27,515	—	9,451	20,648	4
10,267	4,391	7,344	13,293	255,798	9,848	267,925	5
7,773	4,185	3,602	8,308	130,174	5,674	137,178	5
65,034	5,561	9,823	38,339	848,206	15,217	876,840	5
1,275	—	1,356	1,356	—	10	10	6
3,267	—	1,947	1,947	—	18	18	6
6,306	23	76	5,238	2,536	50	17,283	7
3,571,862	76,050	97,013	2,645,824	2,350,198	75,138	8,897,801	7
235,857	130,001	35,558	408,629	77,703	17,689	533,361	8
544	1	26	59	—	7	76	9
37,232	96	1,721	4,438	—	808	5,968	9
34,687	14,808	1,223	43,527	3,289	2,649	25,586	10
1,692	4	7	598	—	10	746	11
51,093	240	275	15,769	—	295	20,142	11
177	2,053	78	2,142	52	60	117	12
9,406	309,595	3,144	313,174	32,880	3,208	36,232	12
97	21	91	118	470	87	577	13
8,255	2,405	7,987	10,648	43,520	2,720	47,017	13
10,236	78	407	3,226	424	1,684	15,285	14
55,945	15,009	13,095	52,535	398,005	17,038	1,790,939	15
330	—	—	20	6,117	25	6,332	16
82	—	—	5	1,468	8	1,526	16
12,405	69	7,724	14,330	116	10,375	19,222	17
14,228	439	8,848	16,913	267	6,813	15,008	17
411,074	30,076	85,789	299,679	160,842	60,283	396,223	18
20,699	4,975	497	12,440	6,167	54	18,872	19
334	12,893	—	13,363	48,845	509	55,693	20
5,601	35	3,068	4,731	30,722	1,605	33,901	21



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Wood—con.					
1	Pails, tubs, churns and other hollow woodenware. \$	230	725	6,865	31	808
2	Spool wood and spools..... "	57,118	255	57,373	26,152	904
3	Wood pulp, chemically prepared cwt. \$	322 643	1,055,380 1,995,817	1,112,457 2,100,842	3,881 5,412	1,373,887 2,660,013
4	Wood pulp, mechanically ground..... cwt. \$	1,434,640 827,490	3,313,950 2,580,462	4,749,719 3,408,702	1,862,589 1,162,470	2,915,601 2,253,621
5	Other mfs. of.. "	225,278	81,094	426,596	217,513	83,331
	<b>Total wood and mfs. of..... "</b>	<b>1,141,991</b>	<b>4,706,155</b>	<b>6,426,273</b>	<b>1,461,421</b>	<b>5,080,013</b>
6	Woollens..... "	19,795	23,401	69,439	26,542	27,800
7	Other articles of manufactures.. "	246,913	478,524	987,159	147,801	441,362
	<b>VI. Mineral produce—totals..... \$</b>	<b>12,066,622</b>	<b>42,541,751</b>	<b>57,442,546</b>	<b>16,027,128</b>	<b>39,491,127</b>
8	Arsenic..... lb. \$	— —	3,492,209 108,305	3,492,209 108,305	— —	2,948,700 117,497
9	Asbestos..... ton \$	8,802 211,450	72,570 1,965,246	91,820 2,486,769	7,937 255,067	78,650 2,087,750
10	Asbestos sand... ton \$	— —	— —	— —	1,024 11,234	26,772 145,289
11	Coal..... ton \$	39,705 120,305	1,630,468 4,130,435	2,055,993 5,555,099	18,549 61,604	1,166,908 2,653,206
12	Chromite (chromite iron).... ton \$	— —	— —	— —	— —	— —
13	Feldspar..... ton \$	— —	13,376 45,737	13,376 45,737	— —	18,898 75,988
14	Gold-bearing quartz, dust, nuggets, etc... "	57,034	11,169,239	11,226,573	3,381	13,322,654
15	Gypsum or plaster, crude..... ton \$	— —	379,393 439,488	379,393 439,488	— —	395,952 480,779

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
4,553	516	514	4,046	2,574	140	4,997	1
27,056	87,479	10,707	98,247	119,557	4,328	124,068	2
1,515,633	450	2,289,661	2,424,328	19,023	3,288,816	3,494,816	3
2,923,083	800	4,550,196	4,806,622	36,777	6,405,616	6,801,011	
4,816,170	2,195,036	3,855,266	6,163,702	362,531	3,875,972	4,649,203	4
3,441,741	1,495,521	2,893,618	4,459,539	299,264	2,967,153	3,575,537	
396,842	192,091	97,366	360,372	303,806	108,515	472,560	5
7,245,211	1,824,825	7,650,603	10,075,952	1,008,821	9,555,016	11,497,870	
81,555	113,629	67,455	1,301,671	160,809	48,389	657,475	6
906,053	447,219	516,820	1,448,987	459,280	432,075	1,270,933	7
59,039,654	12,219,937	37,558,209	51,740,989	12,425,248	51,425,708	66,589,861	
2,948,700	—	3,265,500	3,265,500	175,500	5,080,000	5,255,500	8
117,497	—	120,242	120,242	5,156	196,960	202,116	
105,971	14,726	51,447	74,904	18,461	63,538	88,833	9
2,891,669	513,877	1,437,653	2,227,387	642,865	2,007,994	2,962,010	
28,433	967	18,729	19,928	310	25,640	26,050	10
162,767	12,223	98,314	111,727	3,094	166,036	170,030	
1,498,820	28,663	1,189,234	1,512,487	61,077	1,460,582	1,971,124	11
3,703,765	96,834	3,360,887	4,466,258	210,845	4,297,035	6,032,765	
—	—	79	79	—	11,735	11,735	12
—	—	878	878	—	133,756	133,756	
18,898	22	13,627	13,649	—	—	—	13
75,988	176	56,492	56,668	548	237,526	240,593	
13,326,755	105,324	15,294,355	15,406,510	—	16,870,394	16,870,394	14
395,952	—	322,680	322,680	—	301,629	301,629	15
480,779	—	378,648	378,648	—	347,795	347,795	

## TRADE AND COMMERCE.

19. —Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>VI. Mineral produce—</b>					
	con.					
	Metals—					
1	Copper, fine, contained in ore, matte, regulus, etc lb.	5,385,527	75,561,692	80,947,219	6,805,093	76,443,805
	\$	403,851	9,148,048	9,551,899	512,093	8,977,486
2	Copper, black or coarse, cement copper and copper in pigs... lb.	—	2,681,201	2,717,201	—	—
	\$	—	356,043	359,643	—	—
3	Lead, metallic, contained in ore, etc..... lb.	—	305,600	305,600	—	274,760
	\$	—	8,442	8,442	—	7,562
4	Lead, pig..... lb.	—	—	—	—	—
	\$	—	—	—	—	—
5	Nickel, fine, contained in ore, matte or speiss..... lb.	4,826,783	43,341,307	48,168,090	6,479,250	43,989,648
	\$	718,141	4,327,056	5,045,197	960,621	4,398,920
6	Platinum, contained in concentrates or other forms. oz.	—	89	89	—	153
	\$	—	3,519	3,519	—	7,784
7	Silver, metallic, contained in ore, concentrates, etc. oz.	17,926,748	15,600,586	35,264,018	24,260,358	9,729,445
	\$	10,318,158	8,828,897	20,202,559	13,925,884	5,406,172
8	Mica..... lb.	149,774	751,636	906,912	144,900	517,045
	\$	34,912	282,062	319,444	35,563	156,097
9	Mineral pigments, iron oxides, ochres, etc..... lb.	1,406,000	1,964,890	4,866,890	1,655,700	1,204,200
	\$	7,110	12,781	27,109	6,417	8,351
10	Mineral water... gal.	324	2,867	10,931	—	84
	\$	218	2,093	3,991	—	21
11	Oils, mineral, coal and kerosene, crude..... gal.	—	18,500	18,500	—	3,650
	\$	—	3,964	3,964	—	379

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1912-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
83,150,198 9,489,729	11,062,501 853,900	51,614,537 5,319,457	62,677,077 9,173,457	13,754,500 1,043,366	77,049,906 9,774,964	90,804,466 10,818,324	1
		9,861,780 1,371,889	9,861,780 1,371,889		20,241,906 3,851,749	20,241,906 3,851,749	2
		723,100 12,534	723,100 12,534		1,949,700 46,718	1,949,700 46,718	3
		12,203 483	12,203 483		41,400 1,248	147,600 8,698	4
50,777,777 5,377,777	10,838,477 1,601,251	34,394,086 3,439,539	45,412,017 5,063,656	11,610,100 1,779,801	58,832,900 5,934,968	70,443,000 7,714,769	5
153 7,781	-	2,171	2,171	-	399 25,426	399 25,426	6
30,777,777 20,977,777	16,533,652 8,848,064	8,106,728 4,274,734	25,355,305 13,516,390	16,323,672 8,436,039	9,803,836 5,003,735	27,794,566 14,298,351	7
707,931 20,777,777	126,397 31,856	717,221 184,082	717,221 217,803	118,361 34,161	745,802 194,739	864,163 228,900	8
3,951,300 10,668	982,500 5,940	1,198,100 10,422	3,276,700 20,714	742,000 3,045	2,519,800 18,780	3,261,800 21,825	9
1,757 119	800 49	181 42	981 82	-	147 39	147 39	10
3,050 379	-	17,120 1,177	17,120 1,177	-	24,474 1,059	24,933 1,109	11



## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>VI. Mineral produce—</b> con.					
1	Oils, mineral, coal and kero- sene, refined. gal. \$	— —	157 24	40,641 6,723	— —	18,876 2,725
	<b>Total oils..... gal.</b> \$	— —	<b>18,657</b> <b>3,988</b>	<b>59,141</b> <b>10,687</b>	— —	<b>22,526</b> <b>3,104</b>
	Ores—					
2	Antimony..... ton \$	— —	— —	— —	— —	— —
3	Corundum..... ton \$	235 29,920	1,393 150,463	1,813 196,013	150 20,927	673 77,707
4	Iron..... ton \$	16,800 64,712	113,037 339,841	135,587 426,633	11,800 45,312	95,150 326,983
5	Manganese..... ton \$	— —	8 303	8 303	— —	— —
6	Other..... ton \$	162 61,108	15,580 428,090	15,976 568,198	180 178,995	10,991 292,113
	<b>Total ores..... ton</b> \$	<b>17,197</b> <b>155,740</b>	<b>130,018</b> <b>918,967</b>	<b>153,384</b> <b>1,191,147</b>	<b>12,130</b> <b>245,234</b>	<b>106,814</b> <b>696,803</b>
7	Phosphates..... ton \$	— —	— —	— —	— —	187 497
8	Plumbago, crude ore and concen- trates..... cwt. \$	604 2,065	33,800 75,680	34,664 79,045	1,540 6,730	28,496 73,569
9	Pyrites..... ton \$	— —	3,427 7,007	3,427 7,007	— —	46,293 212,220
10	Salt..... lb. \$	— —	191,700 1,150	375,650 3,358	— —	147,300 1,084
11	Sand and gravel. ton \$	— —	646,285 443,618	646,345 443,638	— —	685,143 485,578
12	Stone, ornamen- tal, granite, marble, etc., unwrought. ton \$	— —	2,524 1,889	2,524 1,889	— —	160 5,396
13	Stone, building, freestone, lime- stone, etc..... ton \$	— —	114,685 29,110	114,685 29,110	— —	192,327 93,007
14	Stone, crushed... ton \$	— —	— —	— —	— —	— —

## EXPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
21,793 3,119	— —	— —	1,256 235	151,864 12,276	139,435 12,112	487,510 53,744	1
25,443 3,498	— —	17,120 1,177	18,376 1,412	151,864 12,276	163,909 13,171	512,443 54,853	
— — 831 99,744 113,650 398,023 — — — 11,137 734,993	332 18,285 142 14,970 — — — 112 113,249	5 1,484 717 60,023 130,496 345,119 90 1,950 12,549 400,421	337 19,769 933 82,358 130,496 345,119 90 1,950 12,764 645,873	928 67,667 42 4,280 — — — 133 181,074	141 10,106 137 17,636 82,866 213,801 539 26,620 48,049 1,035,498	1,069 77,773 179 21,916 82,884 213,861 539 26,620 48,185 1,217,262	2 3 4 5 6
125,918 1,232,760	586 146,504	143,857 808,997	144,620 1,095,069	1,103 253,021	131,735 1,303,661	132,856 1,557,432	
187 497	— —	60 180	60 180	— —	282 3,403	282 3,403	7
30,127 81,209	— —	9,388 21,490	9,944 24,120	— —	8,060 18,976	8,060 18,976	8
46,293 212,220	— —	95,901 393,085	95,901 393,085	— —	145,021 550,330	145,021 550,330	9
369,900 2,140 685,143 485,578	1,500 15 — —	408,000 1,847 959,039 808,012	951,900 5,509 959,039 808,012	64,900 667 — —	246,800 1,811 774,189 319,608	837,300 5,536 774,189 319,608	10 11
160 5,396	— —	95 399	95 399	— —	44,992 18,599	44,992 18,599	12
192,327 93,007 — —	— — — —	62,600 45,950 28,995 20,080	62,600 45,950 28,995 20,080	— — — —	28,658 21,552 42,003 25,016	28,658 21,552 42,003 25,016	13 14

## TRADE AND COMMERCE.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>VI. Mineral produce—concluded.</b>					
1	Stone, for manufacture of grindstones, rough..... ton \$	—	—	—	—	—
	<b>Total stone... ton \$</b>	—	117,209 33,999	117,209 30,999	—	192,487 98,403
2	Other articles of the mine..... “	37,638	233,221	292,891	3,300	74,313
	<b>VII. Miscellaneous produce—totals.</b>	13,655	80,349	97,311	22,126	99,048
3	Coffee..... lb. \$	—	84,540 11,247	87,070 11,935	9,454 2,231	53,478 8,342
4	Contractors' outfits..... “	—	—	—	—	—
5	Dried fruits, n.e.s. lb. \$	—	—	5,589 410	1,110 102	1,880 216
6	Rice..... lb. \$	—	—	—	—	100 3
7	Rice meal..... lb. \$	858,000 12,660	120,000 2,670	978,000 15,330	946,400 7,817	1,667,400 38,059
8	Other miscellaneous articles... “	995	66,432	69,636	11,922	51,413
9	Gold and silver “	—	—	—	54	1,015
10	Copper..... “	—	—	—	—	—

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce—totals..... \$</b>	3,033,820	43,832,566	55,391,008	2,644,109	42,067,495
11	Bamboo reeds cut to length.. “	94	5,353	8,622	479	5,999
12	Breadstuffs, etc., viz.—Biscuits, all kinds..... lb. \$	1,810,780 221,402	487,287 43,438	2,433,405 276,568	2,275,872 299,103	514,804 49,327

## EXPORTS AND IMPORTS OF CANADA.

10.—Exports of Canada to United Kingdom, United States and All Countries in quantities and values by classes of home produce in the four fiscal years 1913-1916—CON.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
—	—	54	54	—	180	180	1
—	—	294	294	—	900	900	
192,487	—	91,744	91,744	—	115,833	115,833	
98,403	—	66,723	66,723	—	66,067	66,067	
83,404	3,933	93,876	102,652	370	38,819	39,398	2
122,307	179,695	453,755	664,462	6,171,139	320,462	6,793,247	
66,933	6,000	90,401	107,397	4,000	366	11,565	
11,517	1,440	17,041	21,117	1,000	106	3,086	3
—	—	167,191	186,831	—	89,985	103,524	4
3,380	—	3,154	3,329	—	30	4,354	5
352	—	81	105	—	3	467	
100	—	1,915,108	2,207,680	200	2,848,434	5,864,830	
3	—	76,154	84,498	9	111,260	226,475	
2,613,800	—	4,310,910	4,310,910	—	3,978,240	3,978,240	
45,876	—	109,242	109,242	—	104,927	104,927	7
63,340	178,210	83,464	262,009	6,170,130	14,066	6,354,453	8
1,219	45	482	567	—	—	200	
—	—	100	100	—	115	115	

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
53,544,539	1,951,276	43,182,964	52,419,384	1,318,844	47,794,990	54,018,369	
9,582	121	1,989	3,331	124	9,813	15,342	
2,928,648	1,659,902	905,173	2,646,813	687,942	705,546	1,441,586	12
361,106	211,043	68,552	287,935	112,470	51,865	168,061	



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce—con.</b>					
	Breadstuffs, etc., viz.—con.					
1	Macaroni and vermicelli... lb.	110,791	695,315	8,035,873	214,376	592,838
	\$	4,849	34,462	392,890	9,924	31,148
2	Rice, all kinds. lb.	6,996,981	1,424,043	55,615,133	7,270,434	2,475,710
	\$	218,217	56,604	1,469,425	227,799	91,245
3	Rice and sago flour..... lb.	744,453	47,232	1,145,592	76,792	301,913
	\$	16,242	2,029	28,715	2,447	14,785
4	Other bread-stuffs..... lb.	1,078,359	432,655	5,014,777	77,175	615,001
	\$	40,047	17,061	171,905	4,764	21,130
	<b>Total bread-stuffs..... lb.</b>	<b>10,741,364</b>	<b>3,086,532</b>	<b>72,244,780</b>	<b>9,914,649</b>	<b>4,500,266</b>
	\$	<b>500,757</b>	<b>153,594</b>	<b>2,339,503</b>	<b>544,037</b>	<b>207,635</b>
5	Grain and products of—Beans..... bush.	83,963	80,111	400,848	30,494	30,888
	\$	161,103	185,336	777,375	60,114	84,619
6	Indian corn for distillation purposes.... bush.	—	975,252	975,252	—	1,056,546
	\$	—	686,549	686,549	—	740,768
7	Indian corn... bush.	4,034	8,883,292	8,901,946	6	5,614,094
	\$	3,838	5,511,510	5,525,982	.12	3,612,203
8	Oats..... bush.	3,574	203,542	207,281	2,707	59,266
	\$	2,553	80,579	83,316	2,668	23,519
9	Peas..... bush.	36,577	59,199	166,894	25,886	31,574
	\$	54,542	174,924	360,583	51,986	108,227
10	Wheat..... bush.	10	616,383	616,395	140	133,229
	\$	13	549,545	549,617	260	115,410
11	Other grains.. bush.	130	126,870	127,301	47	57,385
	\$	173	86,124	86,678	80	40,605
	<b>Total grains. bush.</b>	<b>128,288</b>	<b>10,944,649</b>	<b>11,395,917</b>	<b>59,280</b>	<b>6,982,982</b>
	\$	<b>222,222</b>	<b>7,274,567</b>	<b>8,070,100</b>	<b>115,120</b>	<b>4,725,351</b>
12	Bran, mill feed, etc..... "	53,269	16,344	70,947	10,456	19,549
13	Cereal foods, prepared.... "	28,498	322,835	353,211	25,399	317,470
14	Indian or corn meal..... bbl.	—	55,754	55,754	—	51,024
	\$	—	176,804	176,804	—	168,803
15	Oatmeal..... lb.	24,564	70,710	95,274	30,346	7,568
	\$	1,226	2,121	3,347	1,475	450

## IMPORTS OF CANADA.

11. —Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
10,543,569	122,836	1,092,481	6,701,681	4,154	1,679,688	2,564,933	1
493,330	7,281	60,959	307,144	319	102,097	155,333	
61,904,867	6,539,662	963,004	72,891,845	1,248,291	828,897	79,454,700	2
1,542,247	184,502	41,996	1,571,232	34,153	38,283	1,550,566	
979,043	144,156	160,292	768,627	20,628	315,036	1,116,155	3
31,737	4,802	8,082	24,479	1,133	18,758	38,000	
4,368,291	92,410	599,689	3,781,668	38,217	561,086	3,367,054	4
117,815	4,669	19,946	96,257	2,462	22,901	103,207	
80,724,418	8,558,966	3,720,639	86,790,635	1,999,232	4,090,253	87,944,428	
2,546,235	412,297	199,535	2,290,378	150,537	233,904	2,015,167	
177,434	27,409	29,581	170,273	114	130,774	211,534	5
349,330	49,825	76,722	323,991	321	388,353	561,169	
1,056,546	1,000	901,401	903,401	—	378,961	378,961	6
740,768	600	688,980	690,355	—	265,573	265,573	
6,141,933	15	8,101,779	9,361,826	16	7,548,545	7,818,191	7
3,950,934	66	5,907,047	6,734,199	43	5,601,919	5,764,025	
61,974	2,282	1,407,133	1,411,400	3,648	2,757,463	2,762,388	8
26,189	2,167	696,167	701,365	3,721	1,229,813	1,234,031	
125,972	4,130	28,765	68,549	1,720	11,224	26,667	9
267,659	8,138	80,419	144,094	5,110	32,116	61,418	
133,370	—	1,870,174	1,870,174	78	224,321	224,399	10
115,675	—	1,803,338	1,803,338	20	253,117	253,137	
58,370	10	98,778	99,737	72	39,375	42,944	11
41,828	22	78,771	79,953	118	27,748	30,301	
7,755,599	34,846	12,437,611	13,885,270	5,648	11,090,663	11,465,084	
5,492,383	60,818	9,331,444	10,477,295	9,333	7,798,639	8,169,654	
30,167	5,565	47,778	56,710	8,333	43,700	52,455	12
346,761	16,040	241,738	261,087	11,760	183,699	197,226	13
51,034	—	61,367	61,367	—	53,427	53,428	14
168,818	—	217,108	217,108	—	180,819	180,823	
37,914	25,201	9,351	34,552	9,676	5,481	15,157	15
1,925	1,465	454	1,919	579	343	922	

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce</b>					
	—con.					
	Grain and products of					
	—con.					
1	Wheat flour... bbl.	28	59,013	59,081	23	55,144
	\$	165	267,541	267,917	124	239,461
2	Other grain products..... "	70,810	139,690	221,777	140,028	139,396
	<b>Total grain products...</b> "	<b>153,968</b>	<b>925,335</b>	<b>1,094,003</b>	<b>177,482</b>	<b>885,129</b>
	<b>Grand total breadstuffs.</b> "	<b>876,947</b>	<b>8,353,496</b>	<b>11,503,606</b>	<b>836,639</b>	<b>5,818,115</b>
3	Broom corn..... "	1,166	372,322	377,462	—	323,445
4	Cane and rattans, not manufact'd "	1,333	56,362	59,091	2,343	65,295
5	Cider..... gal.	991	3,517	4,762	1,823	3,933
	\$	1,045	1,574	2,705	1,820	1,363
6	Cocoa beans, not roasted, crushed or ground..... lb.	917,339	4,845,338	6,613,083	759,129	3,702,080
	\$	132,200	657,099	903,446	110,540	524,614
7	Cocoanuts..... no.	80,200	524,186	4,472,968	—	166,803
	\$	2,076	16,415	112,212	—	7,661
8	Cotton wool or raw cotton.... lb.	—	77,457,809	77,457,809	—	76,993,023
	\$	—	8,735,191	8,735,191	—	9,752,437
9	Fibre, Mexican,istle or tampico cwt.	100	2,261	2,465	209	1,538
	\$	1,412	24,378	27,050	2,395	16,397
10	Fibre, vegetable, n.e.s..... cwt.	1,822	6,351	8,811	1,315	5,540
	\$	15,346	52,161	73,933	13,062	50,263
11	Florists' stock... "	17,109	51,795	293,418	15,379	65,742
	Fruits, dried, including nuts—					
12	Apples..... lb.	—	339,758	339,758	—	259,034
	\$	—	16,520	16,520	—	15,576
13	Currants..... lb.	132,308	2,209,762	12,217,006	193,705	2,069,396
	\$	7,508	140,649	655,735	9,030	129,311
14	Dates..... lb.	318,960	3,453,111	3,983,050	452,861	3,602,157
	\$	10,445	190,316	208,938	15,801	210,045
15	Figs..... lb.	317,176	1,041,028	4,421,294	245,795	1,185,701
	\$	13,335	60,512	233,045	9,677	74,340
16	Prunes and plums..... lb.	338	8,832,113	8,942,599	23,693	10,382,578
	\$	63	458,402	466,868	969	533,262
17	Raisins..... lb.	341,762	17,888,503	24,423,150	586,629	11,532,005
	\$	24,923	882,529	1,349,076	30,546	668,831

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
55,207	38	54,558	54,705	7	34,460	34,590	1
239,833	211	255,731	256,533	47	179,414	180,597	
291,223	85,205	193,077	285,640	33,890	156,056	196,658	2
1,078,727	108,486	955,886	1,078,997	54,609	744,031	808,681	
9,117,345	581,601	10,486,865	13,846,670	214,479	8,776,574	10,993,502	
324,590	61	285,513	285,574	—	337,688	337,688	3
68,551	2,582	46,931	50,101	314	89,675	99,202	4
5,897	1,484	1,943	3,594	595	1,544	2,145	5
3,341	1,301	1,101	2,514	568	1,013	1,670	
6,887,757	931,500	2,784,300	5,760,873	889,755	3,343,900	6,696,169	6
961,334	126,195	345,450	710,407	143,277	555,745	1,099,536	
4,057,737	—	319,539	3,908,817	—	256,463	4,267,912	7
117,665	—	10,207	83,758	—	7,439	88,688	
76,993,026	1,016	73,031,437	73,032,453	1,073	96,922,778	96,967,906	8
9,752,437	183	6,533,448	6,533,631	176	10,250,699	10,254,895	
1,857	47	864	960	25	1,894	1,919	9
20,317	588	11,538	13,004	297	20,824	21,121	
7,450	754	7,107	8,128	806	11,958	13,286	10
70,187	7,691	79,418	90,382	11,138	149,415	168,501	
467,695	12,878	56,007	322,945	3,821	52,622	219,764	11
259,034	—	115,366	115,366	—	668,256	668,256	12
15,576	—	7,336	7,336	—	41,251	41,251	
10,670,300	88,273	2,929,150	10,928,641	45,536	3,214,659	8,655,754	13
545,213	4,519	200,120	583,167	2,264	273,552	575,191	
4,371,236	309,949	2,837,443	3,199,934	286,324	3,517,388	3,825,766	14
243,194	9,616	195,668	208,017	10,610	265,727	278,179	
3,277,450	158,709	1,394,498	3,279,422	33,624	1,147,838	1,741,471	15
186,226	7,867	91,323	188,696	1,321	74,777	99,527	
10,592,068	23,408	8,040,254	8,263,372	24,252	10,985,491	11,016,893	16
550,175	1,321	514,809	528,262	1,356	587,549	590,049	
21,664,379	226,734	16,100,284	22,618,070	24,262	23,516,992	24,275,811	17
1,242,233	11,659	1,069,375	1,141,774	2,808	1,544,766	1,619,028	



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>I. Agricultural produce—con.</b>					
	Fruits, dried, including nuts—con.					
1	Other dried fruits . . . . . lb.	15,098	5,091,467	5,527,385	332,033	3,581,452
	\$	1,887	346,692	365,815	22,010	238,466
2	Nuts, all kinds lb.	689,633	9,286,352	18,234,794	917,659	8,303,790
	\$	82,504	641,846	1,686,948	100,782	636,733
	<b>Total dried fruits . . . . . lb.</b>	<b>1,815,275</b>	<b>48,142,094</b>	<b>78,089,036</b>	<b>2,752,375</b>	<b>40,916,113</b>
	\$	<b>140,665</b>	<b>2,737,466</b>	<b>4,982,945</b>	<b>188,815</b>	<b>2,511,564</b>
	Fruits, green—					
3	Apples . . . . . bbl.	—	319,726	320,325	—	330,904
	\$	—	834,220	837,134	—	1,104,292
4	Bananas . . . bunches	—	2,122,680	2,145,423	—	2,624,887
	\$	—	2,347,047	2,368,762	—	2,657,615
5	Berries, all kinds "	—	581,632	581,754	—	680,160
6	Cherries . . . . . lb.	—	969,986	971,619	—	1,072,300
	\$	—	102,855	103,038	—	119,021
7	Cranberries . . . bush.	—	49,853	49,853	—	73,626
	\$	—	131,590	131,590	—	133,072
8	Grapes . . . . . lb.	948,188	5,068,048	6,247,527	1,443,156	6,045,250
	\$	78,463	282,521	380,798	117,429	351,488
9	Oranges, lemons, limes, etc . . . "	107,120	3,575,992	4,156,756	118,560	3,464,376
10	Peaches . . . . . lb.	—	14,579,107	14,579,147	—	12,136,954
	\$	—	330,589	330,599	—	353,440
11	Pineapples . . . . . NO.	—	4,123,501	4,129,662	—	4,259,935
	\$	—	303,168	303,841	—	344,258
12	Plums . . . . . bush.	—	151,648	151,650	—	123,527
	\$	—	267,563	267,580	—	316,524
13	All other . . . . . "	1,750	385,423	389,256	1,397	465,091
	<b>Total fruits, green . . . . . "</b>	<b>187,333</b>	<b>9,142,600</b>	<b>9,851,108</b>	<b>237,386</b>	<b>9,989,337</b>
14	Fruits, preserved "	151,429	465,101	787,828	69,456	423,203
15	Hay . . . . . ton	—	36,472	36,472	—	19,923
	\$	—	485,564	485,564	—	288,023
16	Hemp, dressed and undressed . . . . . cwt.	18,825	33,070	64,990	7,391	42,498
	\$	112,389	185,997	381,797	56,489	351,336
17	Hops . . . . . lb.	107,291	1,225,795	1,658,113	117,942	1,513,593
	\$	40,501	372,747	522,398	44,663	375,957
18	Malt . . . . . bush.	26,706	107,528	134,234	5,475	247,143
	\$	26,673	85,380	112,053	6,507	192,547

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
4,275,201	330	3,971,424	4,116,280	1,750	5,927,050	6,064,324	1
278,151	37	246,295	256,669	292	288,270	297,500	2
19,568,801	639,235	9,138,936	17,241,610	297,470	10,527,498	16,318,342	
1,918,689	72,425	734,895	1,721,680	49,568	876,563	1,596,003	
74,678,463	1,446,638	44,527,355	69,762,695	713,218	59,505,172	72,566,617	
4,979,477	107,444	3,050,821	4,935,598	68,219	3,952,455	5,096,728	
330,907	—	269,305	269,359	—	274,966	275,130	3
1,104,302	—	646,751	646,994	—	742,201	742,692	4
2,635,039	—	2,548,726	2,549,926	—	2,192,898	2,192,898	
2,663,453	—	2,295,692	2,296,381	—	2,230,826	2,230,826	5
681,001	—	607,177	607,319	—	435,464	435,870	6
1,084,797	—	936,507	938,704	—	564,779	565,806	7
120,397	—	102,155	102,397	—	48,598	48,725	
73,629	—	84,582	84,768	—	51,153	51,153	8
133,078	—	109,257	109,500	—	96,731	96,731	
7,712,447	635,276	5,533,640	6,200,160	453,092	5,637,637	6,191,479	9
490,128	48,086	266,886	317,183	44,822	274,028	327,927	
4,338,086	44,383	3,746,792	4,246,619	33,538	3,564,060	3,881,729	10
12,137,209	—	12,733,661	12,733,661	—	13,182,317	13,182,317	
353,483	—	340,739	340,739	—	240,582	240,582	11
4,272,285	—	—	—	—	—	—	
345,130	—	302,831	305,372	—	269,919	270,504	12
123,531	—	104,896	104,904	—	110,662	110,662	
316,560	—	251,762	251,791	—	182,685	182,685	13
472,887	120	405,522	420,328	152	291,562	298,682	
11,018,505	92,589	9,075,564	9,644,623	78,512	8,376,656	8,756,953	
634,775	62,661	289,267	465,201	15,015	188,778	252,569	14
19,923	—	16,078	16,078	—	9,881	9,881	15
288,023	—	208,294	208,294	—	137,387	137,387	
55,572	3,057	46,460	55,370	8,054	38,332	50,914	16
448,970	24,522	259,826	318,914	76,750	292,051	401,516	
1,957,042	137,673	1,185,195	1,367,106	134,014	636,346	770,360	17
579,871	31,973	221,193	278,310	38,787	97,088	135,875	
283,862	3,830	75,696	88,002	1,440	32,120	33,560	18
238,373	4,090	66,981	80,375	2,139	29,369	31,508	

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
I. Agricultural produce —con.						
1	Manila grass.... cwt.	14,606	186,984	343,644	9,956	148,250
	\$	94,003	1,318,245	2,273,810	71,882	1,108,141
2	Oils, vegetable.. gal.	238,651	4,037,224	4,664,593	196,129	3,088,667
	\$	180,802	1,885,758	2,382,265	175,145	1,575,962
3	Oils, vegetable.. lb.	825,930	228,784	1,200,404	187,645	96,027
	\$	70,676	25,221	107,108	13,297	7,084
4	Pickles..... gal.	350,214	152,554	707,214	313,154	125,582
	\$	296,386	98,315	456,546	292,525	69,631
5	Plants and trees	15,683	178,254	236,703	18,283	349,655
6	Seeds, garden, field, etc.....	"				
	\$	132,519	1,120,081	1,343,364	83,482	1,229,125
7	Seed, flax..... lb.	2	282,184	327,376	39	56,336
	\$	7	9,395	11,422	50	2,336
8	Seeds, all other.	118,121	37,058	279,454	130,614	28,547
	Total seeds... "	250,647	1,166,534	1,634,240	214,146	1,260,008
9	Straw..... ton	—	1,151	1,151	—	311
	\$	—	10,026	10,026	—	3,342
10	Sugar, maple, and maple syrup... lb.	350	23,934	24,634	—	23,092
	\$	35	2,678	2,719	—	2,249
11	Tobacco, unmanu- factured..... lb.	120,035	19,873,932	22,153,588	97,806	15,515,446
	\$	38,905	4,893,065	5,719,755	29,641	4,353,184
12	Vegetables.....	337,215	2,396,093	3,242,214	214,332	2,516,677
13	Other agricultural produce.....	"				
	\$	41,750	57,376	105,193	28,885	58,264
II. Animals and their produce—totals.						
	\$	4,833,470	21,671,491	41,088,978	3,579,810	15,514,944
Animals, living—						
14	Cattle..... NO.	304	7,361	8,661	174	7,255
	\$	41,278	187,904	242,956	28,225	215,310
15	Dogs..... NO.	194	759	956	211	670
	\$	10,279	29,600	40,103	12,123	25,675
16	Fowls, domestic, pure bred... NO.	994	26,114	27,118	1,613	27,123
	\$	4,583	40,296	45,026	4,417	53,640
17	Hogs.....	"	2,879	2,879	1,550	4,378
18	Horses..... NO.	2,126	17,537	19,924	1,519	6,436
	\$	613,288	1,862,358	2,569,826	344,900	858,369
19	Sheep..... NO.	14	229,757	229,771	176	209,919
	\$	550	627,127	627,677	5,722	638,268
20	Other animals	2,872	154,801	170,969	3,974	190,359
	Total animals, living.....	"				
	\$	672,850	2,904,565	3,699,436	400,911	1,985,999

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
189,010	4,534	246,839	283,660	6,773	369,733	382,233	1
1,384,031	24,947	1,671,608	1,883,551	62,127	2,553,221	2,653,816	
3,630,223	150,028	3,292,094	3,694,930	208,765	4,660,426	5,033,897	2
2,014,819	129,558	1,526,181	1,943,471	178,837	2,866,001	3,277,129	
293,512	154,337	76,983	231,752	105,020	65,889	191,179	3
21,075	10,074	5,829	15,925	7,563	5,834	15,520	
568,045	204,171	51,399	358,741	65,713	65,818	212,149	4
424,576	201,997	31,366	288,910	68,689	34,439	139,602	
408,585	14,713	233,357	278,513	9,830	166,340	196,011	5
1,367,085	210,043	1,800,977	2,058,436	196,534	2,107,682	2,377,157	6
68,712	—	11,872	12,376	—	2,936,080	4,343,136	7
2,906	—	353	366	—	65,149	96,941	
285,426	139,582	76,779	289,699	42,578	91,744	151,422	8
1,655,417	349,625	1,878,109	2,348,501	239,112	2,264,575	2,625,520	
312	—	198	198	—	93	93	9
3,357	—	2,955	2,955	—	1,187	1,187	
23,092	—	20,564	20,564	2,400	5,756	8,156	10
2,249	—	2,099	2,099	145	588	733	
17,598,449	124,419	17,155,278	18,595,957	95,957	19,806,720	20,834,672	11
5,109,641	30,226	4,226,593	4,718,488	27,040	4,262,023	4,624,607	
3,306,930	142,106	2,552,114	3,039,359	31,591	1,990,297	2,246,677	12
112,821	21,550	23,340	53,940	40,294	81,290	125,122	13
29,880,211	2,874,649	15,329,058	27,873,971	4,801,505	22,686,093	37,555,794	
9,727	47	1,967	2,014	122	409	532	14
269,757	10,125	89,463	99,588	29,596	35,752	65,398	
888	113	516	636	59	441	500	15
38,098	6,911	20,933	28,337	3,493	18,723	22,216	
28,761	492	75,647	76,148	193	34,329	34,532	16
58,238	3,087	42,236	45,370	1,326	27,992	29,368	
5,928	150	2,609	2,759	—	413	413	17
8,099	178	3,070	3,352	80	1,593	1,715	18
1,258,867	52,656	378,064	471,202	34,018	261,224	297,342	
210,095	280	110,726	111,006	70	68,535	68,646	19
643,990	3,924	364,235	368,159	750	231,160	233,345	
236,701	2,413	140,986	209,391	863	51,078	55,818	20
2,511,585	79,266	1,038,726	1,224,896	70,046	626,342	763,900	



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>II. Animals and their produce—con.</b>					
1	Bones, crude, and bone dust, etc. cwt.	24,141	59,732	99,271	16,106	64,196
	\$	57,599	75,733	150,009	56,935	116,310
2	Bristles..... lb.	95,999	70,863	252,418	111,983	67,191
	\$	82,895	71,824	223,263	102,427	54,880
3	Eggs..... doz.	6,035	13,158,538	13,240,111	790	10,795,682
	\$	1,597	2,776,070	2,783,665	211	2,561,221
4	Feathers..... "	106,048	57,053	190,389	49,491	40,032
5	Fur skins, not dressed..... "	379,194	3,561,227	5,599,199	250,269	1,388,415
6	Fur skins, wholly or partially dressed..... "	384,094	325,113	1,362,825	153,711	148,503
7	Grease and degreas lb.	503,182	1,639,507	2,434,441	442,201	1,166,650
	\$	15,264	85,123	111,447	15,377	60,439
8	Grease, rough... lb.	5,367	13,245,724	13,684,437	402,862	11,708,048
	\$	379	867,433	895,957	24,810	765,323
9	Hair, cleaned or uncleaned..... \$	9,210	89,132	114,048	9,104	94,466
10	Hair, horse..... lb.	42,461	243,224	287,815	31,470	92,426
	\$	42,403	125,547	168,879	26,865	74,691
11	Hatters' furs.... "	10,022	89,905	115,867	12,675	56,832
12	Hides and skins, raw..... lb.	6,897,460	18,019,964	64,856,440	3,302,408	11,912,603
	\$	1,227,044	3,161,663	13,305,471	706,690	2,094,514
13	Honey..... lb.	71,174	351,392	652,817	16,201	265,935
	\$	5,969	46,336	66,871	1,539	38,674
14	Milk, condensed. lb.	22,327	219,881	261,555	85,079	247,001
	\$	2,583	15,819	21,171	5,320	16,791
15	Milk and cream, fresh..... "	—	—	—	—	236,772
16	Oils, animal..... gal.	6,103	109,702	117,653	5,537	60,873
	\$	3,265	60,911	64,840	2,691	37,974
17	Provisions, viz.— Butter..... lb.	767,131	1,100,431	7,989,269	91,900	262,840
	\$	200,389	311,022	2,081,989	24,322	73,419
18	Cheese..... lb.	69,911	371,454	1,495,758	49,472	336,041
	\$	14,688	76,619	302,153	12,066	68,733
19	Lard and lard compound, etc. lb.	368,291	13,417,325	13,835,493	310,726	6,733,993
	\$	40,141	1,472,084	1,520,450	40,417	743,173
20	Meats, viz.— Bacon and hams, shoulders and sides lb.	46,203	13,501,736	13,554,394	48,153	7,060,936
	\$	9,086	1,936,565	1,946,278	10,767	1,171,691
21	Beef, salted... lb.	12,500	1,005,607	1,018,857	2,740	640,191
	\$	1,013	67,991	69,057	220	52,271
22	Beef, fresh.... lb.	—	—	609,707	—	235,284
	\$	—	—	57,712	—	43,828

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years, 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
120,025	40,273	64,310	109,389	3,214	62,555	67,885	1
209,505	97,204	119,181	220,450	6,933	91,378	101,852	
257,251	70,790	61,888	138,956	42,707	128,225	187,352	2
214,998	61,019	67,557	132,040	41,055	120,486	174,909	
11,274,036	1,143	4,191,968	4,354,611	272	3,655,703	3,783,952	3
2,630,364	337	950,855	1,005,976	68	770,462	786,100	
121,070	15,575	19,397	39,320	1,863	20,378	23,017	4
2,241,877	68,239	1,124,144	1,328,864	33,087	1,937,386	1,986,581	5
699,979	62,583	135,252	375,675	40,402	239,820	349,168	6
1,828,930	364,981	1,495,780	1,916,816	659,935	2,833,127	3,493,062	7
87,067	10,682	80,474	94,457	27,154	153,116	180,270	
12,166,081	2,653	11,840,628	11,869,101	18,271	7,824,418	7,900,459	8
794,477	198	749,463	751,756	1,264	536,221	542,360	
109,194	5,746	61,872	72,428	2,055	32,233	35,881	9
126,258	15,984	50,488	67,401	1,155	150,606	151,761	10
102,140	17,323	41,544	59,622	1,351	98,790	100,141	
92,689	11,616	91,285	105,976	759	90,385	91,144	11
39,016,872	3,636,412	25,252,917	59,110,483	4,237,772	18,364,233	53,457,468	12
8,777,694	753,856	5,124,285	12,828,215	874,879	4,363,538	12,440,979	
538,560	10,902	130,956	163,827	2,693	256,048	429,078	13
55,985	1,351	17,240	19,661	194	30,507	38,605	
453,417	15,095	97,336	120,845	5,916	46,512	53,258	14
38,416	1,515	6,889	9,485	712	3,177	3,987	
236,772	—	77,413	77,413	—	13,914	13,914	15
66,410	6,293	45,831	52,124	2,940	75,030	77,978	16
39,665	2,328	25,529	27,857	1,043	43,096	44,157	
7,317,259	66,259	1,534,232	6,822,540	64,456	3,072,050	4,309,831	17
1,823,994	16,949	375,394	1,678,056	20,087	745,860	1,092,800	
1,512,108	35,628	425,560	1,162,465	16,614	577,318	971,821	18
299,223	8,366	80,812	229,094	5,154	104,533	187,873	
7,089,650	575,362	2,588,184	3,237,249	2,137	7,354,409	7,969,945	19
792,025	51,939	247,484	306,030	253	663,056	666,102	
7,113,029	13,227	1,493,708	1,512,086	2,805	2,714,817	2,721,682	20
1,182,899	2,875	239,551	243,483	651	343,316	344,553	
642,931	5,861	1,005,010	1,012,641	400	5,083,739	5,090,889	21
52,491	517	78,944	79,648	30	470,872	471,567	
5,561,911	—	156,305	771,295	—	4,252,387	4,252,387	22
390,049	—	26,800	70,830	—	374,499	374,499	

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>II. Animals and their produce—con.</b>					
	Meats, viz.—con.					
1	Canned meats and canned poultry and game..... lb.	1,098,790	692,658	2,228,484	1,523,044	544,451
	\$	201,995	128,544	393,174	276,086	105,479
2	Extracts of meats, fluid beef, etc.... "	96,381	197,520	327,173	212,347	282,297
3	Mutton and lamb, fresh.. lb.	—	4,284,300	5,649,118	251,287	3,821,777
	\$	—	439,401	543,779	25,151	425,941
4	Pork..... lb.	10,246	10,191,235	10,204,676	3,829	12,092,507
	\$	956	1,025,035	1,026,277	414	1,203,411
5	Poultry and game..... "	9,969	379,066	402,634	14,144	258,387
6	Other meats... lb.	32,283	3,642,542	4,168,509	—	3,004,758
	\$	5,126	537,923	572,589	7,661	496,998
	<b>Total meats.. "</b>	<b>324,526</b>	<b>4,712,045</b>	<b>5,338,673</b>	<b>546,790</b>	<b>4,040,303</b>
7	Rennet..... "	3,584	35,885	66,392	2,306	32,507
8	Sausage casings.. "	46,637	101,478	162,474	68,131	84,604
9	Silk, raw, etc.... "	10,473	296,740	354,147	19,653	360,163
10	Wax, bees'..... lb.	8,022	80,024	116,173	1,046	54,863
	\$	1,555	24,934	36,255	379	18,310
11	Wool..... lb.	4,573,672	1,097,799	9,209,170	3,929,650	776,350
	\$	1,081,706	217,041	2,063,028	1,014,157	171,001
12	Other articles... "	109,355	109,789	290,080	32,563	148,895
	<b>III. Fisheries produce—totals..... \$</b>	<b>247,971</b>	<b>915,759</b>	<b>2,674,776</b>	<b>246,858</b>	<b>835,520</b>
13	Anchovies and sardines..... boxes	1,481,866	53,904	7,690,651	1,314,273	56,073
	\$	82,977	5,322	434,844	73,205	5,226
14	Cod, haddock, ling and pollack, all kinds lb.	63,654	354,821	15,068,061	28,780	242,920
	\$	3,839	18,476	691,571	1,880	13,159
15	Halibut..... lb.	—	2,387,455	2,514,833	—	1,553,759
	\$	—	123,371	131,905	—	86,286
16	Herring..... lb.	1,075,773	187,054	13,267,682	1,417,096	297,312
	\$	44,823	10,132	234,827	66,952	16,016

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,466,763 430,803	1,010,340 173,600	283,884 46,610	1,466,556 244,346	88,595 24,506	199,245 30,900	306,205 58,875	1
550,840	182,604	269,250	472,204	136,405	320,377	461,934	2
5,610,812 566,794	— —	2,955,592 335,933	3,451,812 370,330	— —	2,715,338 325,217	2,841,838 334,856	3
12,102,244 1,204,505	6,850 693	8,488,988 820,235	8,499,505 821,411	625 76	52,773,737 5,851,531	52,783,487 5,852,595	4
293,513 4,007,851 595,959	7,164 — 4,110	69,494 1,518,582 280,416	90,712 1,857,168 323,374	1,055 1,120 279	47,775 10,568,752 1,258,593	55,051 10,700,156 1,275,870	5 6
5,267,853	371,563	2,167,233	2,716,338	163,002	9,023,080	9,229,800	
53,261 162,662 413,821 87,762 29,131 7,252,119 1,872,089 202,675	5,266 82,571 22,192 9,931 4,001 3,795,798 1,108,157 14,807	46,825 82,023 374,122 56,811 19,890 7,460,638 2,094,627 109,742	72,564 174,543 433,739 78,804 28,700 13,193,986 3,717,039 143,872	4,702 73,217 23,016 14,257 5,346 9,192,059 3,393,914 9,949	82,295 81,436 355,943 54,640 17,605 5,357,199 2,373,292 67,734	97,712 178,963 379,924 80,302 26,302 21,140,729 7,999,284 80,069	7 8 9 10 11 12
2,331,772	207,930	588,717	1,856,298	124,505	570,986	1,591,073	
7,446,699 418,377	1,002,129 56,591	86,301 7,853	5,551,898 317,675	687,364 35,947	87,350 6,707	3,602,900 224,852	13
8,510,134 442,106	112 8	267,628 15,739	7,439,420 368,033	— —	135,132 10,490	2,965,975 152,753	14
2,314,059 127,129	— —	1,104,702 54,470	1,544,680 79,968	— —	634,329 25,163	904,299 38,927	15
7,966,894 238,918	1,495,059 64,883	261,593 14,960	9,816,424 259,017	882,899 56,834	280,241 16,134	15,523,961 338,657	16



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>III. Fisheries produce—con.</b>					
1	Lobsters..... \$	—	3,564	3,564	220	3,491
2	Mackerel..... lb.	6,266	13,968	83,905	6,600	4,361
	\$	325	1,182	4,642	320	647
3	Oysters..... "	851	404,647	406,818	75	388,431
4	Salmon..... lb.	3,847	613,217	1,677,427	—	2,107,343
	\$	359	83,708	157,146	—	61,838
5	Seafish, other... lb.	113,709	219,620	691,483	62,116	80,141
	\$	13,717	22,191	80,483	7,774	6,897
6	Other fish, fresh, pickled, smoked, etc..... "	95,820	122,980	284,694	89,879	132,720
	<b>Total fish.... "</b>	<b>242,711</b>	<b>795,573</b>	<b>2,430,494</b>	<b>240,305</b>	<b>714,711</b>
	<b>Fish oil—</b>					
7	Cod..... gal.	—	3,522	120,216	379	—
	\$	—	1,330	56,332	397	—
8	Cod liver..... gal.	3,153	9,522	38,922	2,131	6,107
	\$	1,903	6,222	22,176	1,188	5,162
9	Seal..... gal.	—	1,213	41,839	—	20
	\$	—	672	25,509	—	20
10	Other..... gal.	140	51,597	82,608	6,975	32,444
	\$	94	18,340	30,178	3,845	11,422
	<b>Total fish oils gal.</b>	<b>3,293</b>	<b>65,854</b>	<b>283,585</b>	<b>9,485</b>	<b>38,571</b>
	<b>\$</b>	<b>1,997</b>	<b>26,564</b>	<b>134,195</b>	<b>5,430</b>	<b>16,604</b>
11	Other articles of fisheries..... "	3,263	93,622	110,087	1,123	104,205
	<b>IV. Forest produce—totals..... "</b>	<b>63,145</b>	<b>20,016,029</b>	<b>20,138,388</b>	<b>82,005</b>	<b>16,601,319</b>
12	Corkwood..... "	3,137	27,360	44,797	858	20,696
13	D shovel handles "	2,102	69,112	71,214	7	71,044
14	Felloes of hickory or oak, rough sawn to shape only, etc "	—	112,238	112,238	—	79,861
15	Handle, heading, stave and shingle bolts..... "	—	262,428	262,428	—	219,032
16	Hickory billets.. "	—	86,246	86,246	—	69,995
17	Hickory and oak spokes, etc.... "	—	308,820	308,820	—	231,328
18	Hubs for wheels, etc..... "	463	136,020	136,733	67	74,893

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
26,110	—	2,650	11,950	42	4,749	42,624	1
14,559	360	2,652	3,012	—	5,047	8,247	2
1,063	28	394	422	—	579	696	
390,449	21	256,048	259,063	2	280,198	283,536	3
2,952,661	—	118,197	731,004	—	62,044	951,775	4
112,602	28	7,310	46,803	17	6,627	55,190	
613,728	64,144	49,993	461,015	4,605	49,564	1,358,614	5
33,106	6,230	4,431	24,394	495	4,387	47,302	
314,682	72,311	119,351	281,780	17,245	84,663	157,203	6
2,104,536	200,100	483,206	1,649,105	110,582	439,697	1,341,740	
95,865	90	1,394	136,728	150	2,269	101,840	7
39,816	92	562	54,699	360	1,639	65,355	
22,466	1,186	6,212	20,442	63	10,791	11,969	8
18,702	879	4,541	13,945	882	13,742	15,407	
34,307	—	—	10,836	—	—	43,326	9
16,745	—	—	4,909	—	—	21,350	
62,997	11,529	28,933	49,868	22,210	62,189	113,596	10
24,752	6,285	12,547	22,993	12,452	23,918	51,390	
215,635	12,805	36,539	217,874	22,998	75,249	270,731	
100,015	7,256	17,650	96,546	13,694	44,699	153,502	
127,221	574	87,861	110,647	229	86,590	95,831	11
16,789,413	15,174	9,553,706	9,613,891	5,222	5,216,715	5,240,154	
34,212	539	12,247	21,252	1,272	18,341	24,889	12
71,051	47	36,009	36,056	8	46,890	46,898	13
79,861	—	41,381	41,381	—	61,644	61,644	14
219,221	—	142,031	142,031	—	160,827	160,827	15
69,995	10	34,904	34,914	—	52,244	52,244	16
231,328	—	185,414	185,414	—	128,639	128,639	17
74,989	24	67,868	67,892	—	38,863	38,871	18

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>IV. Forest produce—con.</b>					
1	Ivory nuts, vegetable..... \$	1,126	69,098	70,224	—	70,222
2	Fence posts and railroad ties... “	—	1,856,711	1,856,711	—	2,326,843
3	Logs and round unmanufactured timber.. “	4,618	997,099	1,001,717	16,425	648,200
	Lumber and timber, planks and boards, viz.—					
4	Boards, planks, deals, etc..... M. ft. \$	45 1,388	443,502 7,011,936	443,736 7,015,312	219 8,611	266,638 4,931,371
5	Cherry, chestnut..... ft. \$	— —	26,127 882,698	26,329,658 892,963	— —	22,661 774,658
6	Mahogany..... M. ft. \$	398 44,449	3,378 429,973	3,785 475,148	408 47,344	2,334 282,487
7	Oak..... M. ft. \$	2 123	80,645 3,218,870	80,788 3,227,113	34 6,074	62,272 2,629,788
8	Pitch pine..... M. ft. \$	— —	118,868 2,435,376	118,868 2,435,376	— —	135,348 2,912,363
9	Timber, hewn and sawn.... “	—	800,560	800,560	419	521,825
10	Shingles..... M. \$	— —	143,633 276,905	143,965 277,551	— —	53,113 102,622
11	Staves..... M. \$	— —	8,793 305,329	8,793 305,329	— —	5,567 181,624
12	Walnut..... M. ft. \$	1 60	620 43,797	621 43,857	1 73	485 28,691
13	White ash..... M. ft. \$	— —	3,859 204,847	3,859 204,847	— —	2,417 119,552
14	Other lumber and timber.. “	3,473	286,940	305,400	1,103	198,246
	<b>Total lumber and timber.. “</b>	<b>49,493</b>	<b>15,897,231</b>	<b>15,983,456</b>	<b>63,624</b>	<b>12,683,227</b>
15	Wood for fuel... cord \$	— —	43,937 149,677	43,937 149,677	— —	29,072 89,936
16	Other articles of the forest..... “	2,206	43,989	54,127	1,024	16,042

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
70,222	—	23,067	23,067	—	38,618	38,618	1
2,326,843	—	1,255,127	1,255,137	—	645,606	645,606	2
679,816	717	475,061	485,953	—	325,953	325,967	3
267,113	138	157,740	157,884	—	70,356	70,368	4
4,945,091	4,685	2,648,199	2,653,020	46	1,188,012	1,188,566	
23,226,168	—	13,619	13,663,000	—	10,224	10,234,000	5
805,169	—	460,450	462,729	—	351,537	352,031	
2,827	62	1,321	1,383	4	563	567	6
338,820	8,043	144,710	152,769	486	64,145	64,631	
62,848	—	34,079	34,454	—	25,771	26,114	7
2,660,839	—	1,419,823	1,437,924	—	972,994	983,541	
135,348	—	95,182	95,182	—	43,298	43,298	8
2,912,363	—	1,608,788	1,608,788	—	722,358	722,358	
523,244	435	543,924	544,483	385	72,014	73,903	9
53,871	—	16,232	16,606	—	5,719	5,719	10
104,166	—	28,707	29,494	—	8,682	8,682	
5,567	—	3,177	3,177	—	1,200	1,200	11
181,624	—	122,727	122,727	—	34,173	34,173	
486	—	384	384	2	678	680	12
28,764	—	27,561	27,561	532	45,116	45,648	
2,417	—	1,357	1,370	—	634	634	13
119,552	—	70,787	71,443	—	30,770	30,770	
203,983	639	133,933	138,843	522	152,221	154,580	14
12,823,615	13,802	7,209,609	7,249,781	1,971	3,642,022	3,658,883	
29,072	—	23,145	23,145	—	18,890	18,890	15
89,936	—	63,856	63,856	—	45,724	45,724	
18,324	35	7,132	7,167	—	11,344	11,344	16



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—</b>					
	<b>totals. .... \$</b>	<b>119,878,589</b>	<b>276,461,624</b>	<b>456,463,594</b>	<b>115,569,681</b>	<b>242,037,553</b>
1	Ale, beer and porter..... gal.	495,058	1,473,919	2,033,692	467,506	1,541,698
	\$	454,388	868,362	1,347,261	421,874	885,207
2	Ale, ginger..... "	30,827	3,086	33,977	32,185	1,767
3	Antiseptic surgical dressing.. "	55,251	141,986	197,887	75,281	162,214
4	Asphaltum or asphalt..... cwt.	1,613	848,618	1,043,951	15,598	715,716
	\$	935	709,621	847,162	15,412	601,960
5	Baking powder.. lb.	16,453	651,451	667,904	7,717	729,580
	\$	1,563	177,778	179,341	933	206,390
6	Balls, cues and racks for bagatelle tables.... "	5,323	23,372	31,658	5,704	19,036
7	Baskets..... "	18,407	49,087	127,009	16,951	68,040
8	Belting, all kinds, except rubber and leather..... "	349,858	158,720	515,206	286,877	185,045
9	Belts, surgical, trusses and suspensory bandages, etc..... "	11,901	48,946	62,455	12,517	49,321
10	Belts, all kinds, n.e.s..... "	49,589	75,585	129,179	21,684	71,928
11	Bells..... "	8,469	74,288	119,267	20,052	74,864
12	Billiard tables.. NO.	301	775	1,077	293	400
	\$	48,813	53,401	102,475	67,893	35,911
13	Binder twine.... lb.	138,144	29,613,979	29,752,123	1,120	36,756,592
	\$	9,140	2,311,211	2,320,351	136	3,779,434
14	Binder twine, articles for the manufacture of..... "	730	24,744	25,474	518	12,354
15	Blacking, shoe, shoemakers' ink, etc..... "	9,507	116,725	126,249	30,943	101,836
16	Blueing, laundry, all kinds..... "	43,989	6,065	50,066	49,988	5,237
17	Boats..... NO.	44	669	722	28	862
	\$	3,201	26,563	31,396	4,386	31,038
18	Bolting cloths.. "	-	19,417	21,188	70	21,794
19	Books, periodicals and other printed matter. "	1,543,524	4,300,775	6,377,245	1,608,244	4,354,747
20	Boot, shoe and stay laces.... "	110,041	42,788	272,159	113,334	35,959
21	Boots, shoes and slippers, except rubber and leather..... "	180,250	40,261	250,925	209,630	60,039

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
417,555,537	76,868,104	166,466,376	286,214,321	64,026,407	205,603,653	305,474,649	
2,082,194	281,653	739,548	1,061,065	147,348	182,300	331,633	1
1,338,893	242,719	433,964	697,135	122,173	112,732	236,648	
34,014	25,972	1,753	27,743	16,103	1,040	17,160	2
241,544	65,039	185,698	251,463	45,789	251,899	297,941	3
1,070,354	3,705	605,193	841,377	26,422	738,761	838,149	4
833,624	2,297	486,232	635,204	9,725	481,069	521,834	
737,297	8,389	520,088	528,477	794	31,161	31,990	5
207,323	1,051	149,498	150,549	196	7,202	7,401	
28,784	3,677	10,912	19,921	1,908	9,514	11,422	6
159,548	13,928	42,953	93,923	13,743	31,447	70,763	7
478,388	156,028	89,113	247,912	139,830	108,360	249,644	8
63,252	5,928	37,615	44,183	3,631	38,382	42,766	9
94,957	14,106	55,772	70,505	9,136	44,230	53,622	10
127,065	18,215	48,254	96,687	5,869	49,149	74,289	11
693	134	120	254	34	35	69	12
103,804	25,704	5,016	30,720	5,607	2,277	7,884	
36,757,907	1,009,890	27,567,140	28,577,030	2,485,373	32,371,795	34,857,168	13
3,779,589	86,823	2,651,451	2,738,274	216,918	2,770,140	2,987,058	
12,872	—	9,947	9,947	1,387	131,271	132,658	14
133,047	35,987	92,013	128,223	66,408	102,222	168,630	15
55,448	40,940	5,490	46,643	34,691	6,412	41,103	16
894	35	766	802	2	413	426	17
35,659	3,320	26,471	29,866	133	20,271	20,652	
24,788	—	20,564	21,440	—	29,217	31,573	18
6,463,103	1,368,546	3,284,842	5,130,569	991,700	2,993,789	4,168,315	19
248,891	59,953	49,910	142,535	33,478	141,467	177,117	20
317,644	169,231	61,612	265,904	72,723	32,069	118,277	21

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Braces, suspenders and parts of..... \$	15,555	63,848	89,192	13,551	67,248
2	Brass and mfs. of— Brass, old and scrap..... cwt. \$	502 7,256	43,617 542,190	44,487 553,405	138 2,088	24,980 291,667
3	Brass, in blocks, ingots or pigs. cwt. \$	102 2,172	19,820 292,526	19,922 294,698	— —	17,663 232,831
4	Brass tubing, not polished, etc..... lb. \$	479,186 94,794	1,621,989 343,747	2,254,884 471,193	344,075 67,987	1,436,659 313,836
5	Brass rods and sheets for mfs. cwt. \$	1,183 20,795	53,254 912,290	54,499 934,109	804 13,461	46,507 735,148
6	Brass wire, plain lb. \$	35,671 6,687	371,753 66,847	411,838 74,069	12,051 2,605	400,883 68,752
7	Brass, other.... " \$	339,363	2,199,142	2,656,093	327,090	1,963,473
	<b>Total..... "</b>	<b>471,067</b>	<b>4,361,742</b>	<b>4,983,567</b>	<b>413,231</b>	<b>3,605,707</b>
8	Bricks, tiles and mfs. of clay... "	324,068	1,977,553	2,303,602	247,269	1,587,395
9	Bricks, fire..... "	114,201	882,569	1,000,516	212,273	890,143
10	British gum, dextrine, sizing cream, etc.... lb. \$	453,873 14,055	1,506,466 58,628	1,960,479 72,686	416,939 11,831	1,023,426 43,160
11	Brooms, whisks and brushes... "	110,776	300,966	697,297	119,146	295,629
12	Buttons..... "	139,229	508,807	870,978	143,109	458,094
13	Candles..... lb. \$	273,187 25,078	528,456 71,503	820,751 98,705	214,234 18,697	547,263 71,242
14	Cane, reed or rattan, split or manufactured. "	2,286	17,430	22,133	14	4,965
15	Carbons..... "	—	300,263	307,094	4	299,400
	<b>Carriages and parts of—</b>					
16	Automobiles and motor vehicles no. \$	352 583,910	7,993 9,084,726	8,377 9,738,839	399 21,979	5,864 6,528,086
17	Automobiles, etc., parts of. "	14,005	763,129	778,948	31,981	3,926,077

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
89,181	9,072	37,495	55,045	4,364	36,716	46,045	1
25,358	370	12,081	12,461	—	2,915	3,209	2
295,765	4,045	128,379	132,484	—	47,264	49,303	
17,862	—	8,929	8,929	—	15,201	15,201	3
235,198	—	102,067	102,067	—	228,680	228,680	
1,955,896	164,425	1,417,911	1,615,018	18,536	1,137,803	1,156,339	4
417,457	29,555	276,818	312,517	4,544	340,360	344,904	
47,849	—	—	—	—	—	—	5
757,200	6,305	432,678	439,896	500	417,284	417,784	
413,276	2,294	443,540	445,992	568	330,138	330,706	6
71,514	522	70,171	70,754	223	90,929	91,152	
2,418,425	25,695	1,442,153	1,690,208	78,315	2,216,164	2,307,721	7
4,195,559	66,122	2,452,266	2,747,926	83,582	3,340,681	3,439,544	
1,838,001	152,372	1,182,096	1,336,546	79,480	662,000	741,482	8
1,110,161	48,375	431,990	482,763	90,564	626,782	717,793	9
1,440,365	306,854	878,657	1,188,761	277,152	3,192,361	3,469,513	10
54,991	7,898	28,176	36,174	9,012	85,296	94,308	
691,215	76,807	176,475	409,932	62,631	190,113	365,994	11
861,283	88,012	362,284	561,496	49,204	485,706	615,157	12
772,974	151,850	623,995	785,035	69,046	516,507	589,585	13
91,268	14,681	80,356	96,163	8,138	67,129	76,244	
6,977	252	5,132	8,844	122	4,193	6,826	14
299,404	307	222,987	223,294	—	294,561	294,561	15
6,288	299	5,158	5,476	29	8,026	8,055	16
7,213,375	252,898	4,591,182	4,888,704	23,502	5,065,827	5,089,329	
3,966,379	22,337	2,142,895	2,166,193	13,735	4,536,731	4,550,480	17



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Carriages and parts of—con.					
1	Buggies, carriages, pleasure carts, etc. NO.	24	1,903	1,928	22	1,561
	\$	2,283	104,765	107,058	1,732	99,558
2	Wagons, farm, freight and drays..... NO.	17	13,936	13,953	1	8,719
	\$	1,441	641,510	642,951	144	417,498
3	Cars, all kinds.. NO.	114	15,096	15,221	50	8,933
	\$	3,381	7,968,572	7,972,282	3,709	6,927,160
4	Carriages, other, and parts of.. “	204,468	1,266,548	1,562,244	190,083	1,268,513
	<b>Total..... “</b>	<b>809,488</b>	<b>19,829,250</b>	<b>20,802,322</b>	<b>849,628</b>	<b>19,166,892</b>
5	Carpets, n.e.s. <sup>1</sup> . yd.	1,264	2,747	4,011	4,847	1,753
	\$	986	1,164	2,150	2,685	702
6	Carpet sweepers <sup>2</sup> NO.	8	3,570	3,578	10	5,793
	\$	31	13,274	13,305	69	23,633
7	Cash registers and parts of..... “	—	61,523	61,523	—	210,260
8	Celluloid and mfs. of..... “	45,473	173,289	245,366	37,756	153,192
9	Cement..... “	155,402	1,777,535	1,965,857	66,592	274,555
10	Chalk, prepared. “	1,469	40,013	45,260	1,013	42,419
11	Chicory, kiln-dried lb.	418,327	92,928	601,799	314,622	61,250
	\$	21,726	6,092	34,142	13,747	4,343
	“	13,745	2,497	56,963	8,403	2,675
12	Church vestments “	48,591	528,942	718,996	63,656	462,895
13	Clocks, clock cases, springs and movements “	77	36,405	36,486	216	33,999
14	Clothes wringers “	257,702	1,172,539	1,434,231	127,670	1,329,889
15	Coal and pine pitch..... gal.	13,729	74,619	88,941	6,509	74,733
	\$					
16	Cocoa carpeting, mats and matting..... “	18,178	2,785	38,839	12,711	1,671
17	Cocoa, desiccated. lb.	197,667	2,124	731,897	16,585	4,372
	\$	18,875	294	67,286	1,898	645
18	Cocoa paste, chocolate paste, etc. lb.	2,345,850	712,206	4,540,994	5,167,591	952,630
	\$	536,291	151,631	1,057,306	1,122,720	216,415
19	Coffee, roasted or ground, extracts of, etc..... lb.	209,866	784,434	995,663	157,505	977,224
	\$	35,220	191,676	227,000	35,419	236,075

<sup>1</sup> Carpets, other, are included under the head of wool and mfs. of.<sup>2</sup> Includes hand vacuum cleaners in 1916.

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,583	8	861	869	1	533	534	1
101,290	281	43,895	44,176	33	26,921	26,954	
8,720	1	3,025	3,026	75	2,860	2,935	2
417,642	130	145,960	146,090	2,373	66,954	69,327	
8,992	212	2,068	2,280	6	991	997	3
6,931,214	6,875	572,351	579,226	238	238,628	238,866	
1,467,951	114,135	579,075	699,026	90,286	804,031	894,341	4
20,097,851	396,656	8,075,358	8,523,415	136,167	10,739,092	10,869,297	
6,800	540	552	1,092	1,992	1,841	7,114	5
3,491	85	131	216	1,967	795	4,253	
5,803	6	9,249	9,255	40	16,949	16,989	6
23,702	35	43,905	43,940	165	75,069	75,234	
210,260	—	121,177	121,177	—	60,711	62,166	7
214,981	45,517	114,165	176,281	18,360	193,723	215,854	8
352,134	35,054	94,127	132,492	577	43,243	45,296	9
46,982	1,105	36,677	39,841	857	43,368	44,650	10
423,555	173,573	82,211	303,569	14,133	114,292	152,136	11
20,130	7,769	6,779	16,611	973	9,451	11,462	
59,469	5,484	2,188	30,935	6,993	1,064	28,916	12
679,382	33,978	283,414	366,369	20,288	355,875	378,385	13
34,215	43	26,101	26,144	—	22,135	22,135	14
1,457,579	93,398	970,871	1,064,269	47,405	477,172	524,597	15
81,249	5,267	53,107	58,374	2,580	29,202	31,786	
32,780	6,001	2,190	14,019	3,211	1,086	5,290	16
1,048,482	203,877	4,156	672,837	42,276	239	740,470	17
102,285	19,191	837	62,275	4,156	50	56,378	
7,787,246	3,689,421	1,345,107	6,028,927	2,274,357	2,318,174	5,020,269	18
1,770,712	829,094	337,885	1,429,893	530,356	695,942	1,330,087	
1,144,931	104,332	726,451	831,654	90,378	614,921	705,302	19
273,250	24,779	163,322	188,215	23,336	135,988	159,324	

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Coke..... ton	143	709,966	710,109	337	708,440
	\$	941	2,022,312	2,023,253	2,199	2,058,715
2	Collars and cuffs “	115,528	159,024	324,858	72,492	96,845
3	Combs, dress and toilet..... “	79,563	50,438	238,147	62,864	35,892
4	Copper and mfs. of— Copper in blocks, pigs or ingots cwt.	500	50,716	51,216	410	49,995
	\$	7,313	840,081	847,394	6,636	778,094
5	Copper in bars and rods, in coil, etc..... cwt.	7,077	298,656	305,733	202	270,051
	\$	107,143	4,996,701	5,103,844	4,217	4,333,471
6	Copper in strips, sheets or plates..... cwt.	1,037	43,774	44,811	329	39,531
	\$	21,287	852,783	874,070	5,890	718,956
7	Copper tubing, not polished, etc..... lb.	231,229	481,438	889,056	110,019	500,992
	\$	50,777	115,375	201,217	25,108	120,940
8	Copper wire, plain, tinned or plated.... lb.	3,257	463,545	466,802	3,295	495,610
	\$	669	104,846	105,515	711	115,183
9	Copper, other. “	41,399	369,909	416,490	43,681	344,104
	<b>Total..... “</b>	<b>228,588</b>	<b>7,279,695</b>	<b>7,548,530</b>	<b>86,243</b>	<b>6,410,748</b>
10	Cordage and twines..... lb.	3,010,211	1,507,146	4,631,113	3,174,269	1,333,716
	\$	360,242	193,791	571,419	376,722	193,341
11	Corks and other manufactures of cork bark... “	37,269	261,275	519,728	53,469	255,455
12	Corsets, corset clasps, etc.... “	3,473	567,283	577,384	6,803	650,593
13	Costumes and scenery, theatrical..... “	591	4,246	5,329	624	6,383
14	Cotton, manufactures of— Duck, grey or white, over 8 oz., per sq. yd..... yd.	1,213,501	2,914,095	4,129,164	1,565,322	1,988,683
	\$	239,009	891,935	1,131,705	333,047	576,444

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
708,777	161	506,638	506,799	563	693,044	693,607	1
2,060,914	844	1,444,992	1,445,836	4,883	1,745,828	1,750,711	
212,608	33,686	74,191	124,047	30,696	77,464	149,285	2
174,646	63,440	26,575	126,687	49,183	50,811	105,268	3
50,956	1	44,225	44,226	2	37,223	37,225	4
792,861	10	585,600	585,610	44	716,203	716,247	
270,282	—	144,782	144,782	—	133,446	133,446	5
4,338,199	—	2,056,510	2,056,510	—	2,631,652	2,631,652	
39,877	90	33,486	33,576	—	25,527	25,527	6
725,169	1,735	551,155	552,890	—	581,710	581,710	
824,059	55,955	500,616	622,326	7,199	711,112	718,311	7
192,322	11,024	110,369	137,491	1,356	204,468	205,824	
498,908	10,247	93,383	103,630	—	78,582	78,588	8
115,899	2,267	22,400	24,667	—	17,815	17,818	
417,035	19,349	180,018	203,687	9,102	277,881	289,826	9
6,581,485	34,385	3,506,052	3,560,855	10,502	4,429,729	4,443,077	
4,561,997	2,909,540	1,460,995	4,388,060	1,418,006	2,573,476	4,023,090	10
577,938	299,067	190,606	492,001	154,218	250,945	409,951	
522,957	29,625	154,620	305,233	20,588	172,063	283,434	11
668,336	14,117	519,618	536,439	8,047	457,183	465,614	12
7,205	21	8,247	8,322	—	4,698	4,698	13
3,555,145	838,211	1,158,956	2,000,791	236,341	1,358,757	1,595,708	14
909,886	188,459	390,473	580,430	48,416	490,299	538,809	



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Cotton, manufactures of—con.					
1	Embroideries, white and cream coloured..... \$	366,769	43,791	1,549,711	257,133	42,248
2	Grey, unbleached cotton fabrics..... yd. \$	10,081,768 691,108	6,384,140 369,547	16,472,152 1,061,683	23,907,033 1,250,754	3,025,857 201,945
3	White or bleached cotton fabrics yd. \$	26,958,552 2,371,364	6,725,206 590,425	33,954,134 3,003,130	31,194,200 2,564,688	8,405,231 701,662
4	Fabrics, printed, dyed or coloured..... yd. \$	54,828,525 5,328,951	15,109,374 1,561,693	70,995,736 7,042,249	53,514,578 4,749,667	14,496,992 1,600,314
5	Handkerchiefs. " \$	748,377	6,050	832,652	586,014	6,111
6	Sheets, bed quilts, pillow cases, etc... "	950,045	87,750	1,109,557	1,019,619	88,859
7	Shirts of cotton..... doz. \$	34,209 190,182	83,396 449,832	120,034 655,976	31,506 170,981	84,611 444,092
8	Sewing thread on spools.... "	216,369	257,696	506,605	144,829	132,629
9	Sewing cotton thread in hanks..... lb. \$	253,278 143,805	78,918 48,004	338,102 193,685	447,150 243,586	100,716 50,902
10	Clothing..... "	905,406	1,921,236	3,044,538	886,610	1,850,695
11	Lace, white and cream coloured..... "	1,118,003	57,782	1,685,532	832,110	52,771
12	Socks and stockings doz. prs. \$	400,409 505,370	147,306 167,276	869,514 1,120,535	380,327 497,879	155,498 168,718
13	Velvets, velveteens and plush fabrics yd. \$	2,975,561 809,828	122,797 38,378	3,430,226 996,310	3,030,588 822,440	177,663 51,345
14	Cottons, other "	1,744,552	1,413,694	3,312,530	1,838,045	1,440,316
	<b>Total..... "</b>	<b>16,329,138</b>	<b>7,905,089</b>	<b>27,246,398</b>	<b>16,197,402</b>	<b>7,409,051</b>
15	Cotton waste, etc lb. \$	3,175,040 205,126	4,102,237 231,550	7,395,896 443,043	3,121,580 222,552	3,778,846 225,008
16	Cotton yarns.... lb. \$	2,212,725 997,404	476,932 215,240	2,711,727 1,233,388	1,976,792 920,109	268,650 131,885

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,143,703	193,537	145,277	827,829	165,345	214,486	963,360	1
26,912,693 1,454,498	7,422,952 465,620	1,812,757 116,721	9,243,306 584,219	5,065,452 290,896	4,348,222 316,431	9,413,674 607,327	2
39,930,501 3,319,255	23,961,673 1,927,089	7,471,140 657,583	31,684,330 2,622,792	18,763,014 1,475,962	11,999,088 967,307	30,886,907 2,459,676	3
69,103,236 6,580,065 652,616	37,170,111 3,614,874 416,384	15,215,506 1,580,386 11,049	53,010,296 5,299,869 481,483	30,075,361 3,165,693 544,228	32,224,686 3,189,101 21,004	62,511,579 6,391,448 625,902	4
1,184,927	728,419	51,449	819,378	525,630	66,867	625,785	6
118,193 629,471	16,313 94,555	67,013 341,568	84,332 442,555	8,514 46,770	70,887 309,406	79,676 357,802	7
310,606	115,509	96,005	216,002	209,815	137,301	349,777	8
550,933 295,635 2,949,986	352,960 183,508 567,012	133,382 64,815 1,521,821	486,667 248,486 2,182,376	427,786 213,361 354,817	237,177 111,122 1,316,494	664,963 324,483 1,736,625	9
1,144,225	662,521	38,796	818,419	638,636	55,749	830,973	11
831,537 1,070,702	201,846 256,360	246,114 276,916	528,738 639,010	98,735 158,764	580,941 638,497	683,369 800,268	12
3,595,984 1,015,823 3,470,192	3,007,734 794,413 1,446,632	142,133 42,761 1,251,083	3,474,654 979,963 2,830,638	3,480,596 1,040,858 1,071,954	369,352 209,149 1,817,677	4,162,886 1,401,225 2,931,543	13
26,131,590	11,654,892	6,586,703	19,573,449	9,951,145	9,860,890	20,945,003	14
7,233,610 466,438 2,255,172 1,056,313	1,951,453 110,432 1,538,384 687,733	2,412,874 168,712 412,962 176,871	4,559,923 288,850 1,957,871 866,861	1,043,426 95,186 1,415,872 580,903	2,205,448 190,037 646,055 287,978	3,272,858 286,530 2,061,927 868,881	15
							16

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Crapes..... \$	10,274	114	12,239	8,803	475
2	Curtains and shams..... "	571,668	93,021	738,875	429,441	102,849
3	Drugs, dyes, chemicals, medicines..... "	3,272,134	8,986,840	17,028,932	3,191,567	8,405,061
4	Duck for belting and hose..... "	3,502	98,600	102,102	—	78,782
5	Earthenware and chinaware..... "	1,932,418	584,359	3,265,180	1,873,599	571,312
6	Elastic, round or flat..... "	144,378	38,653	184,908	118,919	29,253
7	Electric apparatus, motors, etc. "	1,180,445	7,161,612	8,579,944	945,527	7,056,427
8	Electric light carbons and carbon points. "	3,921	40,535	71,067	5,397	39,333
9	Embroideries, n.e.s..... "	38,786	32,248	143,701	34,596	29,237
10	Emery wheels and manufactures of emery, etc..... "	383	140,137	141,017	405	123,729
11	Express parcels.. "	1,618	2,408,736	2,410,484	2,830	2,099,134
12	Fancy goods.... "	1,956,911	1,100,632	5,000,874	1,788,248	1,127,726
13	Fertilizers..... "	59,310	480,379	540,664	44,336	555,638
14	Fibreware..... "	1,815	141,025	143,274	4,832	154,443
15	Fireworks..... "	8,652	42,551	55,361	4,844	16,105
16	Fish hooks, nets, seines, etc..... "	680,726	707,247	1,403,430	631,764	685,119
17	Flax, hemp, jute and mfs. of.... "	3,235,002	264,170	3,791,642	2,753,258	203,067
18	Furniture, wood, iron or other material..... "	262,407	2,753,568	3,177,085	266,787	2,660,071
19	Fur and mfs. of.. "	445,317	269,505	793,051	439,540	215,209
20	Glass and manufactures of—Common and colourless window glass.....sq. ft.	15,670,154	10,130,199	55,912,478	13,946,781	10,336,026
	\$	438,927	350,353	1,481,086	461,623	417,417
21	Plate glass, not bevelled, in sheets not exceeding 7 sq. ft.....sq. ft.	808,782	282,198	2,047,881	541,509	187,625
	\$	124,425	52,459	351,778	82,332	37,755

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
11,612	7,435	325	* 8,434	9,668	567	11,520	1
594,841	283,067	74,399	389,272	219,535	67,904	305,277	2
15,326,612	2,594,359	8,892,280	14,122,776	2,655,085	13,244,909	17,518,124	3
78,782	2,790	71,635	74,425	2,483	57,244	59,727	4
3,131,105	1,133,332	396,845	1,940,765	950,944	297,276	1,476,753	5
148,249	113,341	19,983	134,306	91,449	34,963	126,627	6
8,404,501	712,463	4,821,114	5,693,512	242,666	4,229,989	4,483,070	7
88,844	1,032	36,112	44,368	67	49,802	51,719	8
121,174	11,521	16,689	48,317	9,443	27,134	49,013	9
124,353	798	85,020	86,027	307	169,299	169,607	10
2,103,138	1,836	1,822,758	1,825,184	1,057	1,725,578	1,726,650	11
4,879,431	1,243,082	1,077,857	3,175,566	915,431	1,578,024	2,885,501	12
605,215	51,042	646,864	715,336	26,223	591,240	617,463	13
159,714	4,649	97,450	102,100	690	107,671	108,391	14
28,727	1,792	12,902	24,670	2,556	14,006	24,268	15
1,333,737	691,389	664,527	1,368,151	447,657	852,733	1,324,237	16
3,298,599	2,825,591	670,207	4,345,123	2,871,341	1,357,971	6,593,201	17
3,049,874	109,391	1,313,492	1,506,756	32,170	699,859	778,387	18
719,596	219,084	159,057	401,889	122,904	161,376	284,625	19
47,928,123	7,593,930	20,284,118	38,444,324	371,634	17,751,575	18,123,209	20
1,497,422	237,813	731,241	1,247,871	18,790	703,288	722,078	
1,400,211	315,914	303,864	946,182	34,133	729,126	805,706	21
248,516	59,279	68,115	191,567	7,253	163,489	178,107	



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Glass and manufactures of—con.					
1	Plate glass, not bevelled, in sheets exceeding 7 sq. ft. each, and not exceeding 25 sq. ft. ....sq. ft.	988,891	52,390	1,720,005	750,127	42,137
	\$	182,265	10,654	312,823	151,394	9,558
2	Plate glass, n.o.p. ....sq. ft.	1,521,690	75,033	2,421,271	1,016,034	68,833
	\$	357,555	17,209	532,572	224,805	14,709
3	Glass, other, and mfs. of. "	407,413	1,644,674	2,692,172	416,885	1,615,020
	<b>Total. ....</b> "	<b>1,510,585</b>	<b>2,075,349</b>	<b>5,370,431</b>	<b>1,337,039</b>	<b>2,094,459</b>
4	Glove fasteners, metal eyelet hooks and eyelets, etc. .... "	13,017	264,303	304,515	11,405	184,562
5	Gloves and mitts " "	1,165,097	400,785	2,793,606	1,219,887	323,964
6	Gold, silver and mfs. of. .... "	637,573	460,035	1,177,778	551,882	339,045
7	Grease, axle. .... lb.	49,971	4,968,898	5,020,612	78,317	4,143,435
	\$	2,375	237,813	240,331	3,822	202,108
8	Gunpowder and other explosives. .... "	415,862	790,311	1,244,091	394,975	665,003
9	Gutta percha, India rubber and mfs. of. .... "	1,904,363	2,716,240	4,792,125	1,995,107	2,505,727
10	Gutta percha, crude rubber, etc. .... lb.	617,473	11,808,205	12,914,438	1,176,725	9,728,524
	\$	370,486	5,637,479	6,267,054	547,393	3,631,044
11	Hair and manufactures of. .... "	82,809	118,547	215,083	71,173	80,833
12	Hats, caps and bonnets. .... "	3,045,361	1,911,510	5,354,912	2,514,829	1,890,573
13	Hatters' bands (not cords) bindings, tips and sides, etc. "	59,732	76,454	148,076	51,044	68,454

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,396,493	364,295	190,681	807,134	7,351	389,749	436,636	1
280,612	82,893	49,141	186,080	2,668	89,590	100,735	
1,854,882	592,672	222,038	1,054,063	25,446	491,312	546,416	2
390,795	151,661	62,797	269,745	9,080	122,636	138,968	
2,657,175	244,226	1,098,662	1,629,089	112,882	1,132,673	1,311,738	3
5,074,520	775,872	2,009,956	3,524,352	150,673	2,211,676	2,451,626	
219,643	9,922	169,520	200,893	5,573	290,917	304,353	4
2,722,130	763,082	279,072	1,768,106	482,291	313,604	1,275,464	5
969,182	328,589	201,370	560,766	208,766	256,401	469,258	6
4,228,989	47,250	3,181,072	3,228,322	89,308	4,283,020	4,372,341	7
206,392	1,707	134,667	136,374	6,497	206,488	212,989	
1,113,972	307,463	723,752	1,048,829	86,038	737,745	823,783	8
4,690,292	1,058,786	2,061,528	3,261,260	575,388	2,401,522	2,999,120	9
11,181,466	1,488,601	9,998,474	12,968,375	5,156,145	11,468,080	16,894,438	10
4,303,751	818,288	2,936,293	4,505,275	3,060,611	3,364,772	6,543,994	
163,215	51,897	44,051	100,706	28,637	40,304	77,259	11
4,862,790	1,298,298	1,589,026	3,112,807	832,922	1,643,894	2,615,171	12
130,596	33,425	82,395	121,082	27,336	112,947	143,615	13

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Ink..... \$	40,017	117,097	160,388	41,748	114,289
	Iron and steel and mfs. of—					
	Agricultural Implements—					
2	Drills, seed.. NO.	3	7,629	7,632	—	5,055
	\$	28	282,450	282,478	—	99,441
3	Harrows..... "	77	176,776	176,853	280	156,434
4	Harvesters, self-binding NO.	—	2,316	2,316	—	3,770
	\$	—	215,129	215,129	—	336,675
5	Ploughs..... "	34	1,371,149	1,371,243	79	1,011,557
6	All other and parts of.... "	80,657	2,315,837	2,399,781	73,002	1,594,156
7	Threshing machine separators. NO.	2	3,291	3,293	—	1,643
	\$	266	2,175,811	2,176,077	—	926,751
8	Portable engines, with boilers, and traction engines for farm purposes NO.	31	3,994	4,025	32	1,128
	\$	56,739	7,312,480	7,369,219	48,471	2,293,649
9	Sewing machines NO.	1,712	17,763	19,556	1,771	15,901
	\$	27,729	400,646	430,066	26,204	306,768
10	Typewriting machines..... NO.	21	18,120	18,146	43	12,144
	\$	797	1,140,638	1,141,903	1,279	721,259
11	Engines, gaso-line..... NO.	216	26,966	27,255	520	19,569
	\$	107,144	3,301,369	3,413,595	110,617	2,456,507
12	Bar iron or steel rolled..... cwt.	252,063	2,439,355	2,704,621	260,786	2,056,400
	\$	487,650	3,401,180	3,916,390	506,994	3,093,901
13	Iron or steel billets, weighing not less than 60 lb. per lineal yard..... cwt.	42,989	1,613,677	1,657,017	64,976	565,113
	\$	50,494	1,590,900	1,641,909	62,746	668,220
14	Iron in pigs.... ton	54,861	237,043	291,904	22,100	173,233
	\$	826,098	2,988,119	3,814,217	344,438	2,341,407
15	Iron and steel railway bars or rails..... ton	689	149,849	150,538	650	178,321
	\$	16,565	3,851,268	3,867,833	18,655	4,901,851

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
158,739	33,776	94,747	131,987	30,251	92,564	123,943	1
5,061	2	5,112	5,114	—	7,930	7,930	2
99,497	109	63,771	63,880	—	68,814	68,814	
156,869	94	67,174	67,268	201	68,661	68,862	3
3,770	—	1,635	1,635	—	3,162	3,162	4
336,675	—	177,158	177,158	—	343,245	343,245	
1,011,704	32	497,787	497,881	925	597,720	599,010	5
1,670,948	60,617	727,865	789,411	14,556	578,201	593,024	6
1,644	2	597	599	—	1,002	1,003	7
926,791	2,706	302,495	305,201	—	624,554	624,641	
1,160	13	464	477	—	838	838	8
2,342,120	21,345	691,120	712,465	1,378	1,166,967	1,168,345	
17,846	1,099	14,766	15,942	1,203	14,788	15,997	9
336,685	16,686	301,054	319,344	20,140	307,998	328,204	
12,196	35	7,223	7,269	5	7,098	7,109	10
722,919	1,510	401,046	402,646	116	377,024	377,282	
20,100	364	14,292	14,668	205	28,520	28,732	11
2,570,138	85,180	1,873,486	2,002,685	31,505	3,376,288	3,408,649	
2,437,569	83,369	728,249	853,881	19,607	1,388,315	1,411,847	12
3,774,986	149,450	1,020,028	1,223,381	51,795	2,502,357	2,565,614	
764,307	1,117	198,700	230,104	251	714,868	715,119	13
855,851	9,269	189,925	226,114	548	845,552	846,100	
195,333	8,533	50,403	58,936	588	50,204	50,792	14
2,685,845	105,842	620,422	726,264	9,695	731,583	741,278	
179,056	148	27,555	27,703	—	10,747	10,747	15
4,922,795	4,337	704,468	708,805	—	308,188	308,188	



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Iron and steel and mfs. of—con.					
1	Rolled iron or steel angles, etc..... cwt.	78,594	1,706,826	1,789,248	191,056	1,698,175
	\$	108,275	2,398,199	2,510,757	289,096	2,492,458
2	Rolled iron or steel beams, etc..... cwt.	174,091	3,735,265	4,013,570	437,162	3,495,401
	\$	237,795	4,954,886	5,319,456	641,482	4,924,971
3	Rolled iron or steel sheets or plates, etc... cwt.	22,042	818,955	842,333	50,824	723,988
	\$	37,454	1,136,799	1,225,605	92,445	1,134,427
4	Rolled iron or steel sheets, polished or not, No. 14 gauge and thinner..... cwt.	1,796	1,314,347	1,321,301	4,700	770,692
	\$	7,689	3,052,323	3,075,053	9,717	1,872,338
5	Sheets, flat, of galvanized iron or steel.. cwt.	40	557,006	557,075	20	337,133
	\$	127	1,537,464	1,537,691	70	1,018,536
6	Skelp iron or steel, sheared or rolled in grooves..... cwt.	7,712	2,252,212	2,259,924	11,867	2,008,856
	\$	11,275	2,768,703	2,779,978	19,735	2,727,174
7	Cream separators and steel bowls for ..... "	94,264	350,518	467,849	43,200	303,439
8	Cream separators, materials for manufacture of..... "	1,604	220,974	229,094	4,855	254,781
9	Rolled round wire rods, not over $\frac{3}{8}$ -in. in diameter..... cwt.	7,812	1,829,459	1,838,386	107,002	1,221,019
	\$	10,074	2,132,014	2,144,405	145,795	1,464,366
10	Boilerplate, not less than 30 in. in width and not less than $\frac{1}{4}$ -in. in thickness..... cwt.	5,727	424,975	430,702	10,599	398,248
	\$	10,129	652,976	663,105	19,479	635,877

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,951,640 2,860,109	24,499 34,891	507,404 677,877	542,453 723,221	683 1,411	788,423 1,190,283	789,106 1,191,694	1
4,256,441 5,964,143	36,882 51,982	1,233,655 1,576,769	1,299,625 1,664,337	— —	1,331,428 1,990,737	1,331,428 1,990,737	2
807,322 1,269,495	9,291 14,095	274,183 407,197	286,989 425,315	1,621 6,285	343,278 558,518	344,899 564,803	3
782,549 1,898,369	664 1,350	577,882 1,243,333	581,792 1,250,021	56 223	930,189 2,095,689	930,245 2,095,912	4
337,279 1,018,830	— —	301,341 819,178	301,451 819,394	— —	347,260 1,161,156	347,260 1,161,156	5
2,020,723 2,746,909	— —	1,885,782 2,103,595	1,886,340 2,104,205	— —	1,904,802 2,367,166	1,904,802 2,367,166	6
401,399	41,016	291,959	408,702	14,456	258,276	304,403	7
273,951	942	193,607	198,116	—	233,166	236,194	8
1,396,123 1,690,183	54,850 56,240	1,163,511 1,304,637	1,297,900 1,450,215	— —	1,384,784 1,904,705	1,384,784 1,904,705	9
411,833 660,510	2,231 3,484	102,374 143,335	104,664 146,915	81 188	117,084 184,536	117,165 184,724	10

## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Iron and steel and mfs. of—con.					
1	Rolled iron or steel plates, not less than 30 in. in width and not less than $\frac{1}{4}$ -in. in thickness.... cwt.	9,746	1,118,945	1,128,736	25,143	1,046,956
	\$	16,420	1,530,579	1,547,067	43,501	1,536,956
2	Rolled iron or steel sheets in strips, polished or not, No. 14 gauge and thinner..... cwt.	147,547	—	147,547	319,074	—
	\$	344,345	—	344,345	771,104	—
3	Sheets, flat, of galvanized iron..... cwt.	561,890	—	561,899	675,166	—
	\$	1,716,963	—	1,716,963	2,054,438	—
4	Barbed fence wire of iron or steel..... cwt.	—	446,122	446,122	470	234,810
	\$	—	887,974	887,974	1,065	503,201
5	Wire, curved or not, galvanized iron or steel, Nos. 9, 12 and 13 gauge..... cwt.	1,094	781,479	823,397	764	676,213
	\$	2,909	1,330,909	1,414,429	1,616	1,219,510
6	Other and mfs. of..... "	10,449,298	63,582,175	76,171,980	9,993,018	54,347,521
	<b>Total..... "</b>	<b>14,752,899</b>	<b>117,110,245</b>	<b>134,252,444</b>	<b>15,323,381</b>	<b>95,344,131</b>
7	Ivory, mfs. of... "	38,597	35,989	181,836	41,642	21,151
8	Jellies, jams, preserves, etc... lb.	8,548,251	134,239	8,826,833	6,185,385	134,106
	\$	759,927	24,993	805,242	535,524	27,700
9	Jewellery..... "	543,466	1,166,553	2,153,447	462,713	1,001,258
10	Junk and oakum. cwt.	5,648	17,552	24,416	5,832	14,525
	\$	23,249	55,577	80,465	26,691	52,035
11	Jute cloth, not coloured, etc.... yd.	12,769,970	624,102	53,065,007	9,806,972	2,789,784
	\$	762,704	31,615	2,601,785	718,798	164,433
12	Jute canvas, uncoloured..... yd.	10,216,250	150,000	24,192,753	14,992,779	882,728
	\$	798,049	8,900	1,424,011	1,288,284	48,844

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
1,096,647	11,717	431,299	444,629	—	547,128	547,128	1
1,613,730	14,882	638,756	655,309	—	907,793	907,793	
319,074	145,200	—	145,200	29,661	—	29,661	2
771,104	318,939	—	318,939	85,344	—	85,344	
675,166	403,704	—	403,704	130,831	—	130,831	3
2,054,438	1,197,223	—	1,197,223	416,672	—	416,672	
235,280	15	325,375	325,390	—	389,342	389,342	4
504,266	41	627,162	627,203	—	1,020,639	1,020,639	
719,205	225	745,371	758,258	—	705,931	705,931	5
1,308,802	756	1,281,757	1,306,942	—	1,636,960	1,636,960	
67,274,514	5,165,931	34,432,361	40,766,894	3,401,747	41,977,744	45,386,678	6
114,724,575	7,358,949	53,379,322	62,285,424	4,057,185	69,385,520	73,496,836	
156,987	29,278	12,521	82,973	44,245	56,689	110,673	7
6,424,420	4,464,082	106,277	4,640,128	2,098,761	74,914	2,211,781	8
580,490	377,261	16,715	402,145	171,980	9,735	208,647	
1,755,131	196,658	590,880	898,076	113,540	560,570	689,664	9
20,794	4,615	15,308	20,529	3,720	10,861	15,136	
79,890	21,532	44,477	66,978	18,985	38,857	59,553	10
46,697,347	4,469,668	1,810,611	17,451,582	2,752,541	1,912,509	6,558,250	11
2,746,493	333,950	95,466	963,025				
29,510,507	2,899,030	14,810	6,383,879	228,597	114,000	430,757	12
2,092,703	276,490	899	468,011				



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Jute, flax or hemp yarn, plain, dyed or coloured, etc. lb. \$	3,855,277	901,159	5,157,194	2,218,692	399,875
2	Lead and mfs. of “	363,630	68,919	481,747	229,789	37,839
		968,001	127,464	1,152,944	504,189	153,695
3	Leather and mfs. of— Leather, belting leather, all kinds..... \$	250,111	10,451	260,562	250,339	21,528
4	Calf, kid or goat, lamb and sheep skins, dressed, waxed or glazed “	182,683	368,654	555,407	146,097	458,622
5	Glove leather, tanned or dressed..... “	16,628	796,342	829,687	12,131	638,939
6	Upper leather, including don-gola, cordo-van, kangaroo, alligator, etc. “	91,885	271,582	364,610	111,696	370,633
7	Boots and shoes, slippers and insoles of leather..... “	485,755	3,483,997	4,008,505	577,291	3,616,112
8	Harness and saddle-ry, includ-ing horse boots “	77,214	165,785	243,287	63,598	109,559
9	Other leather and mfs. of... “	773,867	2,510,677	3,339,479	537,428	1,431,809
	<b>Total..... “</b>	<b>1,878,143</b>	<b>7,607,488</b>	<b>9,601,537</b>	<b>1,698,580</b>	<b>6,647,202</b>
10	Lime..... cwt. \$	34 <sup>1</sup> 33	360,209 <sup>1</sup> 225,411	360,243 <sup>1</sup> 225,444	28,650 8,141	774,156 235,557
11	Lime juice and other fruit juices.... gal. \$	61,957 57,208	50,840 65,089	115,712 127,541	45,540 58,529	77,634 112,591
12	Machine card clothing..... “	26,203	16,545	43,746	28,227	17,169
13	Magic lanterns and slides for.. “	49,666	876,670	946,770	38,562	1,154,174
14	Malt, extract of.. “	5,115	49,715	55,130	15,180	49,295
15	Marble, mfs. of.. “	10,635	190,782	210,222	2,850	165,844
16	Mattresses..... “	1,754	15,905	17,746	804	6,508
17	Mats, door and carriage..... “	723	337	1,194	573	20,788

<sup>1</sup>Bbl.

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
2,717,594	1,732,700	276,038	2,172,095	1,021,759	1,725,839	3,015,453	1
283,736	161,167	25,793	205,126	102,940	166,428	307,998	2
709,591	156,853	605,543	797,070	97,110	2,610,627	2,734,159	
271,867	85,142	8,844	93,986	114,502	10,534	125,036	3
615,102	120,834	870,157	996,016	127,584	1,083,487	1,213,812	4
679,106	19,225	517,647	541,582	4,398	755,855	760,253	5
486,795	99,526	291,076	390,990	57,777	237,892	296,171	6
4,229,563	491,523	2,900,134	3,400,657	215,538	1,902,796	2,120,697	7
173,460	47,535	93,076	140,857	18,368	116,380	135,544	8
1,998,283	322,066	1,161,927	1,494,824	274,970	1,584,922	1,862,048	9
8,454,176	1,185,851	5,842,861	7,058,912	813,137	5,691,866	6,513,561	
802,812	332	594,017	594,364	25	456,872	456,897	10
243,700	145	185,443	185,592	6	110,628	110,634	
127,817	44,775	123,615	174,217	17,019	58,873	79,129	11
177,430	62,734	127,972	195,066	20,814	61,730	85,163	
47,407	21,978	14,032	37,175	15,663	29,215	48,878	12
1,214,428	42,949	1,251,668	1,305,571	39,402	1,138,987	1,184,696	13
64,665	16,087	61,327	78,095	10,945	49,641	60,586	14
177,885	12,015	100,277	124,519	3,167	34,934	38,833	15
7,094	340	4,165	4,640	17	2,527	2,583	16
21,618	184	324	530	8	994	1,077	17

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Metals and mfs. of \$	1,131,840	5,217,084	6,938,078	1,206,746	4,721,656
2	Mineral substances, mfs. of..... "	56,851	497,029	564,388	70,089	498,775
3	Mucilage, etc.... "	4,257	31,662	36,096	5,360	28,915
4	Musical instruments..... "	101,266	1,642,203	1,938,797	102,132	1,704,460
5	Mustard and mustard cake, etc. "	172,148	43,226	216,434	186,113	37,737
6	Newspapers and magazines..... "	81,523	1,052,558	1,138,867	74,998	1,212,194
7	Noils..... "	845,314	128,670	980,432	914,017	151,018
8	Oilcake and meal and cottonseed cake and meal. cwt. \$	7,928 19,229	118,004 167,252	125,923 186,481	3,068 5,350	91,475 132,874
9	Oils, cocoanut and palm..... gal. \$	170,574 143,339	147,086 126,847	393,239 333,027	198,680 176,918	166,772 162,818
10	Oils, other..... "	209,077	980,505	1,346,750	194,788	950,545
11	Oiled cloths, all kinds, cork matting and linoleum..... "	2,062,315	467,261	2,548,752	1,824,032	472,594
12	Optical, philosophical, photographic and mathematical instruments... "	346,619	1,224,093	1,752,928	312,220	753,764
13	Packages..... "	1,672,164	755,810	3,190,879	1,679,364	677,168
14	Paints and colours "	593,036	938,378	1,765,980	570,351	828,870
15	Paper and mfs. of— Hangings of wall-paper, including borders.. roll \$	596,872 117,100	3,110,815 324,727	3,881,477 467,759	393,665 82,353	3,512,496 324,760
16	Printing paper.. lb. \$	5,137,736 286,189	13,862,314 499,432	19,242,968 796,291	5,925,178 313,210	13,004,362 483,947
17	Tarred and other building paper "	3,280	683,124	687,577	4,243	509,086
18	Wrapping paper lb. \$	416,369 14,866	5,274,263 141,621	7,589,459 221,746	321,560 11,415	4,155,708 119,901
19	Other paper and mfs. of..... "	1,380,713	3,995,582	6,059,074	1,279,618	3,984,808
	<b>Total..... "</b>	<b>1,802,148</b>	<b>5,644,486</b>	<b>8,232,447</b>	<b>1,690,839</b>	<b>5,422,502</b>

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
6,671,323	747,141	3,380,920	4,515,354	401,735	3,855,215	4,455,583	1
579,196	42,845	251,856	299,537	49,666	219,767	269,467	2
34,306	3,978	31,815	35,833	3,352	25,055	28,468	3
2,038,559	74,166	1,167,962	1,358,513	90,204	1,339,447	1,477,433	4
224,863	169,153	41,564	211,542	158,605	44,871	203,818	5
1,297,399	82,137	1,339,730	1,425,848	57,963	1,434,433	1,499,009	6
1,072,066	1,033,504	278,376	1,312,885	2,334,887	253,062	2,587,949	7
94,543	5,851	239,613	255,374	4,759	111,752	125,279	8
138,224	10,554	309,192	331,639	11,132	158,824	180,512	
393,862	145,268	178,736	411,797	309,332	213,316	615,933	9
365,796	127,559	161,338	353,285	266,312	173,476	489,966	
1,331,652	128,389	752,263	971,069	95,832	786,898	967,165	10
2,314,378	955,172	333,718	1,292,820	573,089	501,773	1,075,735	11
1,226,157	215,971	681,149	968,120	99,523	517,361	632,990	12
3,144,972	1,182,069	438,869	2,123,533	904,129	413,972	1,620,884	13
1,673,027	302,690	759,224	1,175,319	224,003	1,322,075	1,570,809	14
4,086,329	202,810	2,692,256	2,924,855	235,697	2,254,918	2,493,510	15
436,244	32,307	226,000	264,242	31,158	175,233	207,948	
19,366,757	3,177,638	6,127,746	9,380,068	1,465,005	3,056,820	4,618,280	16
815,990	169,472	284,564	458,010	83,712	172,915	260,805	
513,329	407	317,349	317,756	678	188,034	188,712	17
6,980,626	416,601	6,209,612	7,744,278	55,510	4,614,949	4,772,764	18
214,498	22,346	130,374	192,770	2,990	134,509	141,110	
6,062,772	1,028,477	3,023,320	4,478,756	723,618	3,061,849	3,923,626	19
8,042,833	1,253,279	3,981,607	5,711,534	842,156	3,732,540	4,722,201	



## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Pencils, lead.... \$	64,398	229,507	380,358	59,988	203,553
2	Pens, penholders and rulers.... "	110,642	131,721	250,384	100,537	105,857
3	Perfumery, non-alcoholic.... "	49,403	326,643	446,277	48,777	406,811
4	Photographic dry plates..... "	44,863	16,933	63,944	44,139	16,261
5	Picture and photographic frames. "	33,746	123,663	167,035	30,811	123,538
6	Pitch and tar, pine gal. \$	103,760	3,944,491	4,060,291	18,684	2,625,731
		3,369	159,435	163,996	882	112,309
7	Plaits, straw, tuscan and grass... "	147,475	119,515	342,777	82,283	114,884
8	Plaster of Paris.. cwt. \$	—	—	—	5,149	351,614
		3,871	247,292	251,163	3,480	133,707
9	Plates, engraved on wood or metal "	8,330	71,244	79,574	11,498	55,830
10	Pocketbooks, purses, tobacco pouches, etc.... "	118,234	417,824	662,897	138,622	366,058
11	Polish or composition, knife or other..... "	91,962	123,896	219,144	114,355	113,888
12	Pomades..... lb. \$	14	15	2,029	—	—
		34	16	3,385	—	—
13	Post office parcels "	410,188	932,494	1,343,480	416,092	1,152,393
14	Precious stones, polished, etc.... "	244,290	58,537	518,333	176,179	45,393
15	Rags, cotton, linen, jute, etc... cwt. \$	197,725	479,034	750,003	175,568	505,875
		229,212	1,092,019	1,419,898	257,129	1,094,229
16	Regalia and badges "	15,013	45,338	61,670	18,166	48,990
17	Resin..... cwt. \$	5,058	267,508	272,713	10,603	268,670
		17,484	723,438	741,607	30,428	541,329
18	Ribbons..... "	649,924	149,853	1,679,485	656,330	164,437
19	Sand, glass, emery and flint paper. "	9,631	175,181	184,814	12,663	159,677
20	Sauces, catsups and soy..... gal. \$	147,592	151,632	389,956	125,019	130,530
		173,966	136,936	339,862	163,798	124,430
21	Ships, vessels and repairs on.... "	12,235	772,174	821,133	—	994,414
22	Signs of any material and letters for signs..... "	21,494	123,425	147,559	30,636	138,195
23	Silk and mfs. of... "	3,824,995	1,224,852	8,795,577	3,489,661	1,163,129
24	Slate..... "	12,874	199,078	219,834	17,157	211,836

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
360,218	33,756	184,859	261,548	17,925	246,724	265,608	1
213,954	62,374	66,983	132,956	54,686	75,341	130,363	2
539,491	40,896	345,585	449,578	33,311	343,067	448,329	3
62,364	41,830	13,509	55,592	20,579	13,137	33,716	4
169,157	21,448	84,072	110,853	12,965	78,165	92,966	5
2,646,790	14,261	2,920,562	2,937,062	23,835	2,733,618	2,757,453	6
113,812	1,041	122,633	124,065	2,882	118,223	121,105	
261,656	88,824	136,514	292,685	73,151	215,180	347,008	7
358,206	1,866	129,439	132,112	1,141	47,810	48,980	8
138,231	1,620	46,488	48,602	1,083	16,185	17,288	
67,470	9,324	77,701	88,039	5,832	46,882	52,714	9
665,039	61,252	246,219	370,375	27,577	304,500	344,380	10
229,517	98,501	74,975	175,441	61,156	74,746	137,042	11
160	—	—	250	—	163	563	12
346	—	—	472	—	230	814	
1,569,506	310,018	1,109,014	1,419,934	255,093	1,004,385	1,259,888	13
346,653	83,195	36,542	167,544	53,771	50,254	128,680	14
716,882	97,440	421,726	540,922	68,724	416,559	510,472	15
1,423,458	141,791	1,049,101	1,244,469	92,360	1,207,326	1,333,260	
67,304	19,212	27,217	46,538	21,295	12,804	34,110	16
279,357	11,373	240,557	251,941	7,021	263,605	270,626	17
572,062	27,848	416,710	444,601	26,178	455,227	481,405	
1,820,937	670,057	181,104	1,761,857	602,051	242,433	1,447,657	18
172,427	7,468	118,605	126,170	4,754	107,756	175,512	19
367,618	98,288	99,877	311,146	68,329	73,121	250,534	20
324,214	130,449	106,031	276,570	91,279	64,794	196,137	
1,001,764	—	661,213	707,446	970	217,705	249,065	21
172,007	25,399	84,949	113,874	13,677	71,786	85,781	22
9,250,696	2,539,965	1,300,802	7,684,180	1,936,253	2,507,572	8,296,054	23
236,038	15,273	169,169	188,080	583	105,228	105,877	24

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
	Soap—					
1	Common or laundry..... lb.	369,504	6,514,381	6,910,305	265,022	6,805,057
	“ \$	21,503	362,933	386,190	15,134	367,001
2	Castile..... lb.	188,629	68,440	2,889,836	327,525	31,867
	“ \$	11,066	7,075	175,629	19,094	4,058
3	Toilet..... “	75,033	325,776	415,563	64,484	323,823
4	Other soap, powders, etc.... “	35,939	316,840	355,545	44,606	312,017
	<b>Total..... “</b>	<b>143,541</b>	<b>1,012,624</b>	<b>1,332,927</b>	<b>143,318</b>	<b>1,006,899</b>
5	Spectacles, eyeglasses, frames, etc..... “	2,217	125,228	131,243	4,557	116,985
6	Spices..... lb.	1,297,792	900,126	4,096,620	1,117,176	704,734
	“ \$	144,307	90,139	378,568	127,964	84,414
	Spirits—					
7	Brandy, including artificial brandy, etc.. gal.	8,762	794	565,555	9,353	1,651
	“ \$	18,328	1,889	1,140,290	23,963	4,385
8	Gin of all kinds gal.	170,921	867	1,156,893	184,331	281
	“ \$	222,987	1,383	828,473	239,765	534
9	Rum..... gal.	75,331	7,009	222,841	65,225	7,285
	“ \$	48,604	2,710	122,448	42,730	2,596
10	Whiskey..... gal.	1,450,231	17,875	1,469,148	1,525,166	24,473
	“ \$	2,639,691	54,751	2,696,139	2,867,978	72,079
11	Spirits, other . gal.	25,950	19,599	213,584	29,961	14,780
	“ \$	80,587	140,476	629,555	104,830	118,434
	<b>Total..... gal.</b>	<b>1,731,195</b>	<b>46,144</b>	<b>3,628,021</b>	<b>1,814,036</b>	<b>48,470</b>
	“ \$	<b>3,010,197</b>	<b>201,209</b>	<b>5,416,905</b>	<b>3,279,266</b>	<b>198,028</b>
12	Starch, etc..... lb.	600,729	1,877,155	2,841,792	598,459	1,816,822
	“ \$	27,684	71,250	108,206	26,439	68,952
13	Sockinettes for manufacture of rubber boots.. “	44,695	78,575	123,270	26,804	43,670
14	Stone, mfs. of... “	187,294	726,037	917,791	210,337	669,879
15	Straw, manufactures of..... “	3,030	20,873	122,132	1,513	21,340
16	Sugar and syrups. lb.	14,597,352	28,797,360	640,197,946	5,856,959	17,820,672
	“ \$	537,544	801,336	17,392,146	171,483	388,249
17	Candy and confectionery..... lb.	7,280,853	2,756,476	10,785,514	—	—
	“ \$	1,064,070	356,783	1,541,485	690,769	304,806
18	Glucose and saccharine..... lb.	180,191	7,571,618	7,773,437	38,628	4,456,623
	“ \$	6,507	176,212	183,343	1,914	102,845

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
7,090,469	301,641	7,461,682	7,764,341	107,507	7,250,293	7,368,413	1
383,253	16,411	387,268	403,739	6,186	374,561	381,397	
2,836,587	117,465	30,791	1,910,770	135,322	54,207	1,366,321	2
167,988	7,096	3,862	137,750	9,073	6,582	94,692	
404,822	70,447	372,800	450,396	64,200	336,837	405,942	3
364,809	97,171	170,035	199,822	25,553	107,684	133,402	4
1,320,872	191,125	933,965	1,191,707	105,012	825,664	1,015,433	
126,500	2,218	93,775	99,554	1,103	117,902	119,247	5
4,091,539	829,722	866,259	4,102,039	975,512	1,249,238	4,318,473	6
403,079	86,770	107,159	379,513	107,107	152,197	450,291	
586,999	6,174	725	462,864	2,573	1,330	320,218	7
1,179,959	12,597	1,997	896,513	5,522	3,013	642,000	
1,232,102	155,363	340	926,988	116,765	462	682,481	8
892,719	210,089	1,141	704,316	155,579	1,827	519,118	
219,923	51,907	5,597	186,065	47,376	5,903	178,206	9
118,709	35,571	2,030	101,167	37,312	2,398	114,850	
1,550,450	1,262,929	11,191	1,275,050	1,071,565	9,691	1,081,982	10
2,940,985	2,356,212	33,194	2,390,742	1,946,224	24,409	1,971,701	
216,727	21,515	10,895	159,917	24,435	10,985	118,196	11
688,091	71,700	91,444	470,868	79,506	75,262	355,909	
3,806,201	1,497,888	28,748	3,010,884	1,262,714	28,371	2,381,083	
5,820,463	2,686,169	129,806	4,563,606	2,224,143	106,909	3,603,578	
2,748,354	554,887	2,084,668	2,916,417	203,647	2,693,711	3,006,379	12
104,690	25,077	73,064	106,740	13,462	89,240	104,437	
70,474	21,945	54,714	76,659	5,069	98,236	103,305	13
892,112	204,707	307,393	516,712	151,097	157,118	308,406	14
88,025	1,055	14,073	70,356	594	13,032	71,455	15
703,957,148	3,073,188	41,813,606	677,488,860	108,788	85,676,262	598,950,670	16
15,062,627	88,618	1,281,071	16,781,753	7,278	2,886,628	20,882,608	
—	—	—	—	3,269,347	2,354,587	5,827,203	17
1,043,115	467,494	218,065	724,104	379,560	225,783	626,457	
4,495,869	36,201	4,389,370	4,426,435	14,960	3,275,684	3,290,968	18
104,803	1,812	116,672	118,531	849	96,794	97,667	



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
V. Manufactures—con.						
1	Molasses..... gal.	63,653	525,413	6,248,818	67,500	470,209
	\$	40,992	96,663	1,471,795	44,645	95,753
2	Surgical and den- tal instruments. “	40,156	378,659	455,678	48,672	435,330
3	Tape lines..... “	3,976	5,072	11,674	6,572	6,860
4	Teeth, artificial. “	15,009	150,431	165,578	20,089	162,636
Tin and mfs. of—						
5	Tin in blocks, pigs and bars cwt.	21,135	22,778	51,319	17,524	20,237
	\$	983,942	1,023,280	2,286,142	728,619	866,014
6	Tin plates and sheets..... cwt.	160,921	1,130,329	1,291,428	204,017	853,517
	\$	582,610	3,594,554	4,178,323	684,947	2,859,061
7	Tin foil..... lb.	12,204	1,208,260	1,260,908	7,511	1,102,668
	\$	4,534	170,265	194,206	3,238	165,475
8	Tinware, and all other mfs. of “	126,641	439,749	575,595	133,971	511,578
	Total..... “	1,697,777	5,227,848	7,234,266	1,550,775	4,402,128
Tobacco and mfs. of—						
9	Cigarettes.... lb.	51,034	4,497	75,555	58,670	2,977
	\$	117,728	13,667	178,644	132,118	10,860
10	Cigars..... lb.	2,239	17,564	167,326	1,297	12,960
	\$	8,012	75,288	699,639	4,522	57,718
11	Tobacco, cut.. lb.	489,807	297,590	823,727	467,904	335,151
	\$	370,803	174,802	556,064	556,238	202,740
12	Other and mfs. of lb.	74,572	223,331	299,691	75,489	159,865
	\$	27,936	100,654	129,270	64,837	76,270
	Total..... lb.	617,652	542,982	1,366,299	603,360	510,953
	\$	524,479	364,411	1,563,617	757,715	347,588
13	Tobacco pipes... “	479,157	99,147	1,015,890	394,741	65,667
14	Trawls and trawl- ing spoons..... “	32,734	25,052	57,826	32,664	23,992
15	Trunks and valises, hat boxes, etc. “	26,233	124,953	154,827	31,757	113,590
16	Turpentine, spirits of..... gal.	5,162	1,142,624	1,147,786	62,008	970,479
	\$	3,038	572,943	575,981	24,609	454,670
17	Twine, mfs. of... “	14,371	47,269	61,995	34,185	42,180
18	Umbrellas, para- sols and sun- shades..... “	98,333	25,927	127,208	73,840	18,776
19	Unenumerated... “	81,028	1,001,008	1,154,196	114,126	643,615

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
6,836,838	48,861	509,692	7,888,095	34,244	758,471	4,672,840	1
1,734,643	33,316	85,063	1,405,018	26,698	113,880	1,126,658	
533,273	30,032	345,385	393,341	23,959	332,035	357,433	2
13,933	4,018	3,778	8,141	1,779	2,321	4,139	3
182,725	12,598	154,488	167,086	14,900	175,448	190,348	4
46,076	12,173	14,329	29,402	24,653	7,636	32,756	5
1,959,940	402,594	498,684	1,003,800	879,016	274,064	1,167,601	
1,057,584	136,935	848,107	985,103	38,700	981,499	1,020,199	6
3,544,164	450,950	2,580,909	3,032,224	159,150	3,256,156	3,415,306	
1,151,041	9,154	1,111,430	1,126,382	11,597	1,221,301	1,233,328	7
186,920	3,181	149,632	155,268	3,402	197,760	201,493	
659,586	117,077	466,981	591,816	91,838	435,836	528,447	8
6,350,610	973,802	3,696,206	4,783,108	1,133,406	4,163,816	5,312,847	
79,875	33,406	1,707	44,339	25,377	2,513	30,222	9
188,097	77,301	5,484	103,800	66,257	6,751	79,069	
162,110	1,207	6,763	99,257	594	5,478	56,349	10
679,299	3,662	28,544	409,077	1,772	25,441	244,016	
855,267	274,656	261,135	575,530	344,592	258,437	636,804	11
780,189	311,156	154,722	481,203	529,731	155,474	694,197	
237,645	48,582	82,913	133,622	70,809	66,994	139,591	12
141,992	42,829	45,152	88,810	75,138	35,122	110,973	
1,334,897	357,851	352,518	852,748	441,372	333,422	862,966	
1,789,577	434,948	233,902	1,082,890	672,898	222,788	1,128,255	
869,802	205,892	44,107	400,079	127,661	146,480	307,877	13
56,688	24,758	22,014	46,899	20,157	19,863	40,067	14
149,576	16,883	47,317	66,021	7,246	30,706	39,847	15
1,033,612	884	904,553	905,437	15	903,131	903,146	16
479,788	582	458,561	459,143	14	443,564	443,578	
76,591	11,296	35,034	46,571	12,940	23,656	36,599	17
98,376	55,677	16,438	77,603	23,443	11,776	38,969	18
866,788	94,688	505,731	671,777	69,359	710,130	799,951	19

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—con.</b>					
1	Varnishes, lacquers, japans, etc.... gal.	19,372	87,824	107,595	26,524	63,650
	\$	39,066	151,105	191,063	47,890	118,479
2	Vinegar..... gal.	154,781	16,416	182,519	177,515	26,724
	\$	63,267	3,037	69,390	74,836	5,165
3	Watches, watch cases, move-ments, glasses, etc..... "	144,712	1,037,129	1,730,753	139,342	880,183
4	Wax, mfs. of.... "	34,720	267,690	307,797	42,019	216,525
5	Webbing, elastic and non-elastic "	56,831	269,722	352,169	39,346	189,883
6	Whips, thongs and lashes..... "	5,420	39,437	44,977	4,510	21,314
7	Window cornices, poles, shades, rollers..... "	60,118	54,588	114,842	59,925	32,267
8	Wine, non-spark-ling..... gal.	25,606	80,549	937,068	23,698	70,510
	\$	46,886	39,091	835,256	47,516	35,586
9	Wine, sparkling..doz.	2,023	813	79,829	1,963	578
	\$	24,436	6,497	806,989	28,096	4,411
10	Wood and mfs. of. "	157,266	4,140,644	4,458,817	204,252	3,643,835
	Wool and mfs. of—					
11	Cassimeres, cloths and doeskins..... yd.	4,705,840	61,046	5,068,694	2,650,319	70,823
	\$	3,018,211	34,944	3,221,612	1,727,622	66,933
12	Coatings and overcoatings.. yd.	1,422,145	4,088	1,484,387	1,478,578	13,089
	\$	1,177,298	2,564	1,216,752	1,256,329	8,730
13	Tweeds..... yd.	2,535,272	3,931	2,599,083	2,069,694	14,394
	\$	1,439,763	2,710	1,473,463	1,243,943	4,917
14	Knitted goods, including knit- ted underwear "	1,192,763	160,294	1,507,032	1,014,667	108,136
15	Socks and stock- ings, all kinds doz. prs.	797,640	36,731	872,885	898,181	33,889
	\$	1,510,742	81,264	1,664,325	1,696,891	70,800
16	Yarns, composed wholly or in part of wool, worsted, the hair of the goat, etc.... lb.	4,012,731	7,184	4,076,335	3,937,786	21,646
	\$	2,199,684	2,956	2,240,973	2,223,493	10,288

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
90,573	17,671	46,830	64,736	12,636	41,145	53,985	1
167,326	37,880	86,942	125,364	28,660	87,408	116,621	
215,316	141,960	29,307	181,332	96,387	36,383	143,660	2
83,001	58,240	5,208	66,137	35,532	4,450	42,792	
1,574,261	96,059	533,457	876,179	68,787	690,373	1,067,568	3
266,113	29,845	168,829	195,813	23,644	215,693	241,310	4
35,038	18,540	146,888	166,895	14,067	189,559	203,956	5
26,010	4,277	21,502	25,803	4,105	16,364	20,531	6
92,192	33,342	20,132	53,532	21,837	18,550	40,387	7
928,255	19,492	45,627	738,345	13,632	30,460	493,459	8
809,475	33,316	24,121	632,275	23,186	16,291	405,342	
85,240	1,025	149	32,288	198	24	9,118	9
762,293	13,847	900	363,409	2,288	255	96,724	
4,042,386	127,814	2,384,365	2,795,592	92,542	1,897,423	2,097,203	10
2,959,503	1,587,875	143,182	1,844,362	1,159,629	302,357	1,465,069	11
1,967,706	1,394,885	161,815	1,658,163	1,130,899	307,694	1,442,385	
1,564,828	1,197,229	16,136	1,250,697	972,543	109,393	1,082,815	12
1,317,921	976,629	13,090	1,019,014	855,006	90,428	946,882	
2,135,706	1,601,413	100,428	1,739,971	1,509,810	153,081	1,668,489	13
1,274,755	831,449	169,424	1,017,980	891,354	55,947	951,349	
1,265,261	422,737	52,999	510,439	314,675	96,020	412,323	14
965,711	645,270	21,898	677,668	362,179	123,518	485,955	15
1,829,668	1,170,615	46,903	1,235,782	740,687	225,777	967,048	
4,030,279	1,834,010	45,896	1,908,661	1,501,922	600,176	2,102,098	16
2,284,205	1,151,536	29,536	1,198,457	1,084,083	550,376	1,634,459	



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>V. Manufactures—concluded.</b>					
	Wool and mfs. of—con.					
1	Yarns, woollen and worsted. lb.	450,745	5,932	554,349	407,671	4,300
	\$	252,972	3,422	305,328	222,424	3,758
2	Fabrics and mfs., composed wholly or in part of wool, worsted, etc.. “	8,965,662	160,449	10,435,013	8,742,437	197,271
3	Clothing, women's and children's outside garments..... “	184,369	191,909	528,130	224,911	255,057
4	Clothing, ready-made, and wearing apparel..... “	1,288,295	861,705	2,418,111	1,243,200	753,517
5	Other, and mfs. of..... “	4,833,748	282,121	5,566,368	4,621,390	300,912
	<b>Total..... “</b>	<b>26,063,507</b>	<b>1,784,338</b>	<b>30,577,107</b>	<b>24,217,307</b>	<b>1,780,319</b>
6	Yarns, n.e.s..... lb.	316,871	35,824	353,750	167,602	38,829
	\$	70,610	7,233	78,183	108,184	39,872
7	Zinc and mfs. of. “	151,834	540,024	1,302,318	137,342	449,545
8	Other manufactured articles. “	866,067	2,399,319	3,598,496	1,017,142	1,474,910
	<b>VI. Mineral produce—totals..... \$</b>	<b>2,248,175</b>	<b>59,843,903</b>	<b>65,820,233</b>	<b>1,968,719</b>	<b>66,614,695</b>
9	Clays..... “	119,111	206,126	327,370	92,188	226,885
10	Coal, anthracite and dust..... ton	28,680	4,208,630	4,237,310	33,909	4,351,833
	\$	123,685	20,275,594	20,399,279	149,529	20,584,198
11	Coal, bituminous ton	11,284	11,049,602	11,060,910	3,386	13,732,557
	\$	32,418	20,415,060	20,447,587	9,825	26,064,157
12	Emery, in bulk, crushed or ground “	2,643	45,826	48,469	6,051	36,897
13	Gravel and sand. ton	1,003	529,943	542,927	5,227	403,938
	\$	4,544	443,958	465,263	6,340	390,488
14	Lithographic stones, not engraved..... “	—	7,135	7,307	94	7,123
15	Marble, sawn only “	4,526	203,319	239,678	4,439	195,359
16	Marble, rough, not hammered or chiselled..... “	—	59,559	61,009	1,510	101,516
17	Mineral and aerated waters... “	66,204	69,765	273,751	54,420	49,591

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
475,474 267,135	355,135 219,346	19,207 10,334	403,559 249,039	328,212 287,642	28,641 20,352	357,582 309,237	1
10,115,541	5,886,908	515,211	6,965,040	5,898,960	1,945,152	7,908,429	2
589,788	191,564	349,528	568,674	161,617	705,305	868,330	3
2,183,755	721,787	527,049	1,287,264	390,240	430,309	821,523	4
5,363,515	3,100,762	769,415	4,013,310	2,966,895	409,643	3,402,144	5
28,459,250	16,068,218	2,645,304	19,723,162	14,722,058	4,837,003	19,664,169	
259,833	392,262	67,701	504,590	338,757	100,401	492,366	6
215,387	157,421	97,051	305,851	245,898	143,298	434,175	
919,418	26,945	733,054	941,814	3,270	2,387,549	2,390,884	7
2,886,256	847,550	1,538,148	2,292,645	426,818	1,479,969	2,265,129	8
71,694,173	1,834,897	51,081,049	54,171,002	1,148,997	45,451,050	48,022,694	
319,955	66,642	200,769	267,888	75,093	183,563	258,727	9
4,385,799	27,114	4,356,268	4,383,407	2,859	4,426,279	4,429,143	10
20,734,126	129,712	20,797,654	20,927,539	14,678	20,445,875	20,460,571	
13,754,214	11,261	9,113,165	9,124,499	2,705	9,628,393	9,631,101	11
26,140,076	38,230	16,097,495	16,135,920	8,128	10,211,063	10,219,206	
42,948	875	27,147	28,150	1,039	98,825	99,866	12
423,512	2,949	248,441	258,062	16	208,873	208,928	13
419,720	6,757	199,017	215,933	76	126,981	127,211	
7,336	100	2,914	3,014	—	1,065	1,065	14
235,623	1,135	150,374	178,773	20	85,826	85,846	15
117,821	—	89,327	104,261	—	23,834	23,983	16
259,836	25,186	38,493	194,125	19,519	32,631	127,575	17

## TRADE AND COMMERCE.

## 11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	<b>VI. Mineral produce—</b> con.					
	Minerals, viz.—					
1	Alumina..... cwt.	—	262,419	262,419	—	299,918
	\$	—	525,017	525,017	—	600,454
2	Litharge..... cwt.	9,989	6,092	26,402	3,492	1,758
	\$	3,020	29,680	116,960	15,672	10,600
3	Other minerals “	18,214	228,905	278,501	23,221	192,094
	Oils, mineral—					
4	Coal and kerosene, distilled, purified or refined..... gal.	1,446	16,496,527	16,545,672	175	19,278,099
	\$	385	1,103,769	1,110,690	33	1,350,502
5	Oils, products of petroleum gal.	22,949	4,091,173	4,114,122	26,819	5,138,909
	\$	5,037	432,217	437,254	6,740	618,506
6	Oils, lubricating, composed wholly or in part of petroleum..... gal.	29,364	6,250,223	6,282,819	13,241	5,134,973
	\$	5,861	819,159	825,792	3,012	707,811
7	Oils, other.... gal.	1,643	185,679,913	186,843,680	1,611	145,560,851
	\$	620	10,278,747	10,462,656	787	10,531,634
8	Ores of metals, n.o.p..... cwt.	—	898,244	898,244	63	1,504,024
	\$	—	672,237	672,237	530	982,890
9	Ore, iron..... ton	50	1,256,996	2,116,933	500	1,105,413
	\$	975	3,191,643	4,052,505	502	3,160,664
10	Phosphate rock.. “	—	24,137	24,137	—	16,221
11	Precious stones, diamonds unset, diamond dust or bort, and black diamonds for drills..... “	1,446,401	119,888	3,858,283	1,207,302	71,720
12	Salt..... cwt.	1,310,663	792,645	2,797,272	1,185,153	943,247
	\$	273,035	175,458	500,095	269,429	221,550
13	Stone, flag, granite, rough, sandstone, etc..... “	3,412	118,385	123,691	4,465	91,962
14	Stone, granite, sawn only..... “	974	22,555	24,636	699	10,868
15	Whiting or whitening..... cwt.	231,968	48,412	290,494	228,237	45,776
	\$	90,383	26,607	119,578	76,668	24,066
16	Other mineral products..... “	46,727	349,157	418,488	35,263	366,939

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—con.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
299,918	—	250,805	250,805	—	368,087	368,308	1
600,454	—	501,807	501,807	—	987,517	988,062	
11,288	3,855	4,851	10,547	150	22,830	22,980	2
57,207	17,415	23,862	49,920	876	136,854	137,730	
230,453	11,416	171,642	190,646	10,458	208,619	220,015	3
19,280,479	110	9,586,232	9,587,159	1,219	6,420,166	6,421,825	4
1,351,098	18	653,241	653,401	341	345,694	346,125	
5,166,274	44,771	5,723,266	5,768,037	150,126	6,149,659	6,299,785	5
625,367	8,354	588,238	596,592	22,978	582,075	605,053	
5,156,734	3,287	4,360,438	4,369,293	1,994	3,755,768	3,757,762	6
712,808	696	570,364	572,375	476	510,506	510,982	
205,563,375	5,771	219,534,783	222,896,594	3,157	216,366,660	229,027,484	7
10,532,931	1,891	8,026,234	8,114,801	1,753	7,158,596	7,533,978	
1,504,087	576	765,714	766,568	—	2,889,528	2,889,528	8
983,420	101	469,578	469,945	—	1,976,160	1,976,160	
1,972,207	—	674,215	1,055,724	24	784,458	1,595,995	9
4,027,460	—	1,739,210	2,138,398	561	1,735,322	2,518,286	
16,221	—	17,122	17,122	—	15,068	15,068	10
2,986,507	1,196,857	59,636	1,682,623	672,843	34,736	795,299	11
2,926,408	983,985	943,529	2,681,891	919,340	926,450	2,772,724	12
593,868	237,589	222,245	517,610	227,534	192,052	517,302	
98,582	761	73,858	74,619	—	47,303	47,303	13
11,567	764	3,076	3,840	262	2,712	2,974	14
280,122	188,815	44,096	234,166	130,367	60,866	191,239	15
102,993	65,099	21,885	87,499	46,117	34,809	80,929	
515,166	25,299	335,858	444,201	46,245	273,364	323,378	16



## TRADE AND COMMERCE.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—concluded.

No.	Principal articles by classes.	1913.			1914.	
		United Kingdom.	United States.	All Countries.	United Kingdom.	United States.
	VII. Miscellaneous produce totals. \$	8,444,828	18,400,190	33,940,068	7,980,294	27,114,565
1	Articles, the growth, produce or manufacture of Canada, returned after having been exported “	59,699	451,219	567,392	31,032	616,489
2	Articles for use of the Governor-General..... “	18,481	3,198	23,320	15,788	315
3	Articles for army and navy..... “	3,402	13,993	18,365	145	127
4	Articles ex-warehoused for ship's stores... “	21,121	781,560	811,332	29,038	989,911
5	Bacteriological products or serums..... “	20,635	103,197	127,564	19,969	87,696
6	Barrels or packages returned.. “	23,687	99,259	124,907	10,823	163,607
7	Cabinets of coins, collections of medals, etc... “	1,210	1,664	3,314	431	1,829
8	Coffee, green.... lb.	1,583,154	173,289	15,228,569	1,044,138	187,432
9	Models of inventions and other improvements. “	293,515	28,882	2,457,262	178,230	26,403
10	Paintings in oil or water colours.. “	4,905	40,299	47,467	4,334	44,062
11	Settlers' effects.. “	382,540	436,384	930,939	384,807	349,958
12	Sponges..... “	4,850,843	10,675,453	15,934,383	4,530,625	9,238,698
13	Tea..... lb.	11,078	85,540	98,278	14,248	77,992
14	Other miscellaneous articles. “	13,937,870	220,533	40,296,055	13,325,663	301,653
15	Coin and bullion—Coins, British and Canadian and foreign gold coins.... “	2,620,212	34,433	6,843,620	2,623,639	38,648
16	Gold bullion in bars, blocks, ingots, drops, sheets or plates, unmanufactured.... “	126,269	272,597	523,946	136,668	258,067
17	Silver bullion in bars, blocks, ingots, drops, sheets or plates, unmanufactured.... “	6,210	3,010,911	3,025,219	267	13,649,197
		113	1,244,367	1,284,592	203	834,756
		908	1,117,234	1,118,168	44	736,810

## IMPORTS OF CANADA.

11.—Imports of Canada from the United Kingdom, the United States and All Countries in quantities and values by classes entered for consumption in the four fiscal years 1913-1916—concluded.

All Countries.	1915.			1916.			No.
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	
41,896,804	6,408,751	142,414,057	155,260,437	8,683,315	71,370,233	90,174,628	
694,688	126,005	557,242	718,652	98,114	890,437	1,166,104	1
16,110	7,712	2,127	9,874	5,570	1,329	6,899	2
372	465,448	2,727,305	3,210,698	1,929,447	36,646,716	38,633,283	3
1,041,782	31,577	923,158	967,173	23,685	922,450	952,630	4
114,448	6,600	95,988	107,568	2,900	108,805	116,245	5
174,661	22,702	181,803	213,225	4,161	124,405	129,392	6
2,569	487	1,995	2,577	624	2,464	3,088	7
15,691,293	1,051,873	631,365	14,489,622	538,188	1,110,818	15,402,664	8
2,103,203	158,081	65,156	1,751,810	81,260	126,351	1,558,605	
50,294	6,289	27,738	34,176	504	26,509	27,013	9
932,272	174,507	214,242	455,266	65,088	172,741	246,496	10
14,348,441	2,467,101	5,213,211	7,864,092	451,645	3,442,574	3,968,986	11
95,927	8,580	62,523	72,928	8,157	47,947	62,094	12
37,628,322	13,573,807	516,697	40,830,701	15,028,017	313,168	40,655,939	13
6,649,716	2,749,368	76,557	7,364,250	3,278,820	42,195	8,271,900	
440,016	181,629	280,571	495,156	28,966	618,164	771,691	14
13,659,192	2,612	117,050,072	117,055,024	2,606,025	26,195,399	32,137,908	15
838,959	7	14,424,816	14,428,372	98,409	1,617,772	1,738,319	16
736,854	43	509,553	569,596	-	383,975	383,975	17

## TRADE AND COMMERCE.

## 12.—Values of Exports which may be classed as Manufactures in the four fiscal years 1913-1916.

Principal articles by classes.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
<b>Agricultural products—</b>				
Cider .....	22,266	19,737	15,715	7,750
Fruits, canned or preserved.	220,786	394,719	476,497	864,984
Flour of wheat .....	19,970,689	20,581,079	24,610,946	35,767,044
Indian meal .....	7,767	14,639	9,549	8,043
Oatmeal .....	837,079	488,589	287,844	471,298
Meal and flour, all other ....	17,836	7,534	1,616	2,136
Malt .....	15,723	4,256	4,141	63,778
Maple sugar .....	104,324	159,619	131,477	178,791
Maple syrup .....	4,151	5,284	6,687	5,794
Vegetables, canned .....	24,959	17,655	299,412	637,617
Cereal foods .....	2,015,675	2,166,330	1,970,402	1,950,706
Totals .....	23,241,255	23,859,441	27,814,286	39,957,941
<b>Animal products—</b>				
Butter .....	223,578	309,046	639,625	1,018,769
Cheese .....	20,697,144	18,868,785	19,213,501	26,690,500
Furs, dressed .....	15,306	11,550	29,862	110,198
Meats, canned .....	26,718	94,961	2,340,081	2,730,616
Milk and cream, condensed.	25,554	666,941	1,181,300	770,566
Oils, animal .....	222,746	247,143	239,638	240,500
Totals .....	21,211,046	20,198,426	23,644,007	31,561,149
<b>Fisheries—</b>				
Herring, canned .....	1,755	1,834	53,338	103,512
Sea fish, preserved .....	102,983	145,144	118,284	26,295
Oysters, preserved in cans..	—	1,547	40	—
Lobsters, canned .....	3,048,798	2,983,987	3,013,782	2,672,179
Salmon, canned .....	3,484,110	6,631,437	4,948,723	6,306,056
Oils, fish .....	628,155	447,752	348,606	375,896
Totals .....	7,265,801	10,211,701	8,482,772	9,483,938
<b>Forest products—</b>				
Ashes, pot, pearl and other.	62,140	48,862	57,044	68,430
Lumber, all kinds, including shingles, shooks, staves, etc. ....	33,433,089	33,272,876	33,217,525	43,352,973
Totals .....	33,495,229	33,321,738	33,274,569	43,421,403
<b>Mineral products—</b>				
Copper, fine, contained in ore, matte, regulus, etc. .	9,911,542	9,489,729	7,545,246	14,670,073
Lead, metallic, contained in ore, etc. ....	8,442	7,562	12,534	46,718
Lead, pig .....	—	—	97,286	8,698
Nickel, contained in ore, matte, etc. ....	5,045,197	5,374,738	5,063,656	7,714,769
Platinum, contained in con- centrates, etc. ....	3,519	7,784	2,171	25,426
Silver, contained in ore, concentrates, etc. ....	20,202,559	20,971,538	13,516,390	14,298,351
Oils, mineral, coal and kerosene, refined. ....	6,723	3,119	235	53,744
Salt .....	3,358	2,140	5,509	5,536
Totals .....	35,181,340	35,856,610	26,243,027	36,823,315
<b>Aggregates for the five classes</b>	<b>120,394,671</b>	<b>123,447,916</b>	<b>119,458,662</b>	<b>161,247,746</b>

## EXPORTS CLASSED AS MANUFACTURES.

## 13.—Summary of Values of Exports to the United Kingdom, to the United States and to Other Countries of Home Produce which may be classed as Manufactures in the four fiscal years 1913-1916.

Classes of products.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
<b>Agricultural products—</b>				
United Kingdom .....	14,932,089	13,378,344	18,372,698	23,633,776
United States .....	276,844	303,079	435,470	1,564,228
Other countries .....	8,032,322	9,678,018	9,006,118	14,759,937
Totals. ....	23,241,255	23,859,441	27,814,286	39,957,941
<b>Animal products—</b>				
United Kingdom .....	20,528,690	18,598,652	20,773,801	29,996,107
United States .....	139,078	638,489	1,380,059	700,052
Other countries .....	543,278	961,284	1,490,147	864,990
Totals. ....	21,211,046	20,198,426	23,644,007	31,561,149
<b>Fisheries—</b>				
United Kingdom .....	3,754,296	6,710,922	5,192,556	6,176,844
United States .....	1,280,468	1,238,946	1,264,511	932,262
Other countries .....	2,231,037	2,261,833	2,025,706	2,374,832
Totals .....	7,265,801	10,211,701	8,482,773	9,483,938
<b>Forest products—</b>				
United Kingdom .....	8,688,225	10,029,660	9,363,461	13,527,261
United States .....	21,635,336	20,478,553	22,314,297	27,391,950
Other countries .....	3,171,668	2,813,525	1,596,811	2,502,192
Totals .....	33,495,229	33,321,738	33,274,569	43,421,403
<b>Mineral products—</b>				
United Kingdom .....	11,440,150	15,398,598	11,303,230	11,272,143
United States .....	22,673,179	18,801,733	14,422,654	24,652,731
Other countries .....	1,068,011	1,656,279	517,143	898,441
Totals .....	35,181,340	35,856,610	26,243,027	36,823,315
<b>Aggregates by countries—</b>				
United Kingdom .....	59,343,450	64,616,177	65,005,746	84,606,131
United States .....	46,004,905	41,460,800	39,816,991	55,241,223
Other countries .....	15,046,316	17,370,939	14,635,925	21,400,392
Totals .....	120,394,671	123,447,916	119,458,662	161,247,746

The articles in Tables 12 and 13 are usually grouped as natural products, as has been done in Table 7 under the heads of agricultural, animal, fisheries, forest and mineral produce, as well as in Table 10. But by some authorities they are grouped with manufactured products, and they have been abstracted here to show the kinds and values of articles to be added to manufactures in those several tables, if so classified. If added to the exports of manufactures as given in Table 7, page 304, or in Table 10, pages 324-5, the total values would be \$164,087,379 for 1913, \$180,891,368 for 1914, \$204,998,163 for 1915, and \$403,282,744 for 1916. Added to the exports of manufactures to the United Kingdom in Table 7, page 304, the total value for 1916 would be \$233,083,434, to the United States \$113,443,364, and to other countries \$56,755,946, and the total increase in the period from 1913 to 1916 would be over 145 p.c. But the chief component value of these exports is that of raw material.



## TRADE AND COMMERCE.

## 14.—Values of Imports which may be classed as Manufactures in the four fiscal years 1913-1916.

Principal articles by classes.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
<b>Agricultural products—</b>				
Arrowroot .....	6,665	7,540	5,659	7,761
Biscuits, all kinds .....	276,568	361,106	287,935	168,061
Bran, mill feed, etc .....	70,947	30,167	56,710	52,455
Cereal, foods .....	353,211	346,761	261,087	197,226
Cider .....	2,089	2,507	2,167	1,584
Indian or corn meal .....	176,804	168,818	217,108	180,823
Malt .....	112,053	238,373	80,375	31,508
Macaroni or vermicelli .....	392,890	493,330	307,144	155,333
Oatmeal .....	3,347	1,925	1,919	922
Rice and sago flour .....	28,715	31,737	24,479	38,000
Rye flour .....	19,451	28,848	43,900	26,467
Tapioca and sago .....	145,161	91,307	72,034	78,118
Vegetables, canned .....	901,343	698,540	377,259	221,687
Wheat flour .....	267,917	239,833	256,533	180,597
Other articles .....	222,405	281,344	260,304	187,519
Totals .....	2,979,566	3,022,136	2,254,613	1,528,061
<b>Animal products—</b>				
Butter .....	2,081,989	1,823,994	1,678,056	1,092,800
Cheese .....	302,153	299,223	229,094	187,873
Fur skins wholly or partially dressed .....	1,362,825	699,979	375,675	349,168
Lard and lard compound .....	1,520,450	792,025	306,030	666,102
Meats, canned .....	393,174	430,803	244,346	58,875
Meats, extracts of, etc. ....	327,173	550,840	472,204	461,934
Milk, condensed .....	21,171	38,416	9,485	3,987
Oils, animal .....	64,840	39,665	27,857	44,157
Wax, bees' .....	36,255	29,131	28,700	26,302
Totals .....	6,110,030	4,704,076	3,371,447	2,891,198
<b>Fisheries—</b>				
Anchovies and sardines .....	434,844	418,377	317,675	224,852
Fish, preserved in oil .....	7,682	8,479	8,760	9,304
Lobsters, canned .....	442	22,753	9,300	37,941
Oysters, canned .....	61,830	52,861	30,479	27,410
Oils, fish .....	134,195	100,015	96,546	153,502
Salmon, canned .....	90,523	2,416	2,350	1,048
Sea fish, preserved .....	73,990	11,670	11,319	1,490
Totals .....	803,506	616,571	476,429	455,547
<b>Forest products—</b>				
D shovel handles .....	71,214	71,051	36,056	46,898
Lumber, all kinds, including shingles and staves ..	14,257,132	11,783,621	6,705,298	3,584,680
Totals .....	14,328,346	11,854,672	6,741,354	3,631,878
<b>Mineral products—</b>				
Oils, coal and kerosene, distilled, purified or re-fined .....	1,110,690	1,351,098	653,401	346,125
Oils, product of petroleum ..	437,254	625,367	596,592	605,053
Oils, lubricating .....	825,792	712,808	572,375	510,982
Salt .....	500,095	563,868	517,610	517,302
Whiting, or whitening .....	119,578	102,993	87,499	80,929
Totals .....	2,993,409	3,356,134	2,427,477	2,060,391
<b>Aggregates for the five classes</b>	<b>27,214,857</b>	<b>23,553,589</b>	<b>15,271,320</b>	<b>10,567,075</b>

## IMPORTS CLASSED AS MANUFACTURES.

15.—Summary of Imports from the United Kingdom, from the United States and from Other Countries which may be classed as Manufactures, in the four fiscal years 1913-1916.

Classes of products.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
<b>Agricultural products—</b>				
United Kingdom .....	519,186	534,016	273,563	182,936
United States .....	1,552,338	1,428,406	1,158,913	1,071,909
Other countries .....	908,042	1,059,714	822,137	273,216
Totals .....	2,979,566	3,022,136	2,254,613	1,528,061
<b>Animal products—</b>				
United Kingdom .....	944,291	727,339	503,885	233,908
United States .....	2,612,566	1,493,679	1,207,110	2,168,424
Other countries .....	2,553,173	2,483,058	1,660,452	488,866
Totals .....	6,110,030	4,704,076	3,371,447	2,891,198
<b>Fisheries—</b>				
United Kingdom .....	101,607	88,323	71,158	50,183
United States .....	191,126	78,913	56,306	80,749
Other countries .....	510,773	449,335	348,965	324,615
Totals .....	803,506	616,571	476,429	455,547
<b>Forest products—</b>				
United Kingdom .....	50,207	55,555	13,414	1,594
United States .....	14,241,407	11,724,320	6,701,694	3,616,898
Other countries .....	36,732	74,797	26,246	13,386
Totals .....	14,328,346	11,854,672	6,741,354	3,631,878
<b>Mineral products—</b>				
United Kingdom .....	374,701	355,882	311,756	297,446
United States .....	2,557,210	2,922,435	2,055,973	1,665,136
Other countries .....	61,498	77,817	59,748	97,809
Totals .....	2,993,409	3,356,134	2,427,477	2,060,391
<b>Aggregates by countries—</b>				
United Kingdom .....	1,989,992	1,761,115	1,173,776	766,067
United States .....	21,154,647	17,647,753	11,179,996	8,603,116
Other countries .....	4,070,218	4,144,721	2,917,548	1,197,892
Totals .....	27,214,857	23,553,589	15,271,320	10,567,075

The articles in Tables 14 and 15, if added to the imports of manufactures in Table 11, pages 300-1, would give totals of \$483,678,451 for 1913, \$441,109,126 for 1914, \$301,485,641 for 1915, and \$316,041,724 for 1916. The imports of manufactures from the United Kingdom with the articles in these tables added would reach a total for 1916 of \$64,792,471, from the United States of \$214,206,769, and from other countries of \$37,042,481, making an aggregate import of manufactures for the year of \$316,041,724, or over 58 p.c. of all imports.

## TRADE AND COMMERCE.

## 16.—Values of Exports (domestic and foreign) to the British and Foreign West Indies by Countries during the fiscal years 1914-1916.

Countries.	1914.		1915.		1916.	
	Exports, domestic.	Exports, foreign.	Exports, domestic.	Exports, foreign.	Exports, domestic.	Exports, foreign.
	\$	\$	\$	\$	\$	\$
British Guiana.....	649,675	3,061	675,660	3,137	1,207,134	4,770
British West Indies...	4,469,329	20,540	4,333,095	33,697	4,115,872	19,029
Total British West Indies.....	5,119,004	23,601	5,008,755	36,834	5,323,006	23,799
Cuba.....	1,815,414	13,107	1,482,649	39,342	1,419,087	12,203
Danish West Indies...	15,207	173	13,536	35	7,537	—
French West Indies...	20,862	—	32,479	—	103,895	—
Dutch West Indies....	2,289	—	6,715	—	7,701	—
Dutch Guiana.....	46,749	—	40,453	495	49,574	301
French Guiana.....	—	—	2,374	—	1,234	—
Hayti.....	37,783	—	4,295	—	2,119	—
Porto Rico.....	542,962	324	468,698	—	699,460	3,256
San Domingo.....	59,721	—	3,938	—	12,919	—
Total Foreign West Indies.....	2,540,987	13,604	2,055,137	39,872	2,303,526	15,770
Total Exports to the British and Foreign West Indies.....	7,659,991	37,205	7,063,892	76,706	7,626,532	39,569

## 17.—Values of Total Imports (dutiable and free) from the British and Foreign West Indies by Countries during the fiscal years 1914-1916.

Countries.	1914.		1915.		1916.	
	Imports, dutiable.	Imports, free.	Imports, dutiable.	Imports, free.	Imports, dutiable.	Imports, free.
	\$	\$	\$	\$	\$	\$
British Guiana.....	3,554,353	6,547	2,909,514	13,601	5,681,148	4,902
British West Indies...	2,368,940	2,116,004	4,267,015	1,772,586	4,696,003	1,659,779
Total British West Indies.....	5,923,293	2,122,551	7,176,529	1,786,181	10,377,154	1,664,681
Cuba.....	3,362,993	569,113	1,520,619	183,585	1,149,079	244,415
Danish West Indies...	259,214	—	117,687	—	58,307	—
Dutch West Indies....	—	367	—	—	—	—
Dutch Guiana.....	241,267	—	203,898	—	329,430	—
Hayti.....	—	106	—	—	—	—
Porto Rico.....	22	1,591	—	—	3	—
San Domingo.....	3,166,144	—	3,464,512	—	3,288,695	124
Total Foreign West Indies.....	7,029,640	571,177	5,306,716	183,585	4,825,514	244,539
Total Imports from the British and Foreign West Indies.....	12,952,933	2,693,728	12,483,245	1,969,766	15,202,668	1,909,220

## TRADE WITH WEST INDIES.

## 18.—Value of Imports and Exports from and to British and Foreign West Indies 1901-1916.

Fiscal Year.	Imports from			Exports (domestic and foreign) to		
	British West Indies and British Guiana.	Foreign West Indies and Foreign Guiana.	Total.	British West Indies and British Guiana.	Foreign West Indies and Foreign Guiana.	Total.
	\$	\$	\$	\$	\$	\$
1901.....	1,406,480	594,768	2,001,248	2,297,804	984,306	3,282,110
1902.....	1,702,293	539,697	2,241,990	2,456,132	1,339,408	3,795,540
1903.....	2,415,608	596,970	3,012,578	2,699,167	1,471,843	4,171,010
1904.....	7,006,892	667,232	7,674,124	2,662,524	1,423,542	4,086,066
1905.....	8,589,656	714,339	9,303,995	2,872,770	1,460,801	4,333,571
1906.....	7,521,360	657,081	8,178,441	2,847,381	1,831,656	4,679,037
1907 <sup>1</sup> .....	5,208,892	524,599	5,733,491	2,188,542	1,497,240	3,685,782
1908.....	9,293,804	525,026	9,818,830	3,090,468	2,096,502	5,186,970
1909.....	9,088,596	605,260	9,693,856	3,054,073	2,006,362	5,060,435
1910.....	9,004,421	1,815,110	10,819,531	3,697,872	2,384,296	6,082,168
1911.....	10,262,613	2,062,006	12,324,619	4,736,005	2,501,599	7,237,604
1912.....	10,550,491	2,891,199	13,441,690	4,617,961	2,925,246	7,543,207
1913.....	9,443,393	4,941,127	14,384,520	4,591,105	2,327,508	6,918,613
1914.....	8,045,844	7,600,817	15,646,661	5,142,605	2,554,591	7,697,196
1915.....	8,962,710	5,490,301	14,453,011	5,045,589	2,095,009	7,140,598
1916.....	12,041,835	5,070,053	17,111,888	5,346,805	2,319,296	7,666,101

<sup>1</sup>Nine months.

NOTE.—Foreign West Indies include Cuba, Danish, Dutch and French West Indies, Dutch and French Guiana, Hayti, Porto Rico and San Domingo.

## 19.—Percentage Proportions of Imports from United Kingdom and United States, respectively, to totals of dutiable and free in the 49 fiscal years 1868-1916.

Fiscal Year.	United Kingdom.			United States.		
	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1868.....	64.78	39.82	56.06	22.93	53.96	33.77
1869.....	69.35	31.75	56.20	18.95	62.04	34.03
1870.....	66.52	34.50	56.10	19.27	59.69	32.43
1871.....	66.25	35.99	57.58	23.43	54.31	32.28
1872.....	70.59	38.20	59.27	19.43	55.81	32.14
1873.....	66.63	38.55	54.61	23.42	53.47	36.29
1874.....	62.69	29.03	49.87	27.67	65.19	41.97
1875.....	62.64	28.16	51.11	28.55	67.78	41.66
1876.....	53.76	25.08	43.75	35.41	70.53	47.67
1877.....	54.03	19.31	41.78	38.59	77.88	52.45
1878.....	53.76	16.69	41.21	39.25	80.13	53.10
1879.....	48.84	16.72	39.34	42.95	78.91	53.57
1880.....	51.74	36.43	48.30	36.11	54.88	40.33
1881.....	50.06	37.23	47.39	35.78	56.74	40.15
1882.....	48.34	35.04	45.30	38.41	55.58	42.33
1883.....	44.47	36.16	42.40	42.20	54.48	45.25
1884.....	41.02	35.03	39.56	44.74	53.88	46.97
1885.....	41.90	35.22	40.12	42.62	54.12	45.68



## TRADE AND COMMERCE.

19.—Percentage Proportions of Imports from United Kingdom and United States, respectively, to totals of dutiable and free in the 49 fiscal years 1868-1916—concluded.

Fiscal Year.	United Kingdom.			United States.		
	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1886.....	43.00	34.13	40.66	41.97	51.94	44.60
1887.....	45.78	33.25	42.56	39.13	52.71	42.61
1888.....	44.29	26.81	38.90	38.90	62.34	46.13
1889.....	43.26	28.97	38.73	38.91	60.79	45.86
1890.....	43.15	28.95	38.75	39.65	60.13	45.99
1891.....	42.19	28.57	37.67	39.97	60.12	46.65
1892.....	44.58	22.24	35.66	42.66	48.34	44.90
1893.....	45.61	23.53	36.92	40.88	52.49	45.44
1894.....	43.79	20.61	33.96	41.13	53.84	46.52
1895.....	39.81	18.39	30.85	44.05	57.79	49.84
1896.....	36.24	22.19	31.15	43.28	64.07	50.80
1897.....	30.53	22.73	27.58	46.03	65.69	53.48
1898.....	30.23	18.35	25.36	51.00	71.13	59.24
1899.....	30.77	15.70	24.72	49.73	73.43	59.24
1900.....	30.25	18.66	25.66	51.65	70.69	59.17
1901.....	29.92	15.50	24.10	50.58	74.66	60.30
1902.....	29.54	17.94	24.95	50.72	70.11	58.40
1903.....	30.85	18.84	26.15	50.10	68.46	57.29
1904.....	30.18	17.73	25.34	52.07	69.14	58.71
1905.....	29.88	15.14	23.98	52.21	73.13	60.58
1906.....	30.40	15.03	24.42	51.74	71.90	59.59
1907 (9 months)	32.05	16.04	25.79	51.93	71.28	59.50
1908.....	32.64	17.35	26.83	50.59	70.51	58.16
1909.....	29.84	16.31	24.52	51.76	70.20	59.00
1910.....	31.60	16.49	25.78	52.29	69.22	58.81
1911.....	29.82	15.05	24.34	54.14	72.05	60.84
1912.....	26.69	14.72	22.42	58.72	71.74	63.37
1913.....	24.47	13.43	20.71	62.57	69.78	65.03
1914.....	24.95	14.26	21.35	60.81	70.16	63.96
1915.....	24.31	12.61	19.79	60.27	72.85	65.13
1916.....	17.97	11.63	15.24	68.93	73.29	72.95

## RATES OF DUTY ON IMPORTS.

20.—Average ad valorem Rates of Duty collected on Imports from United Kingdom, United States and All Countries in the 49 fiscal years 1868-1916.

Fiscal Year.	United Kingdom.		United States.		All Countries.	
	Average on dutiable imports.	Average on total imports.	Average on dutiable imports.	Average on total imports.	Average on dutiable imports.	Average on total imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1868.....	—	—	—	—	21.161	13.119
1869.....	16.851	13.522	20.088	7.283	20.172	13.118
1870.....	16.779	13.420	19.546	7.836	20.890	14.088
1871.....	16.436	13.493	16.264	8.427	19.648	14.021
1872.....	16.408	12.712	17.976	7.070	19.071	12.406
1873.....	15.583	10.872	17.663	6.519	18.281	10.439
1874.....	16.461	12.808	17.448	7.119	18.899	11.696
1875.....	18.145	14.801	17.271	7.876	19.650	13.078
1876.....	18.761	15.009	19.239	9.307	21.275	13.853
1877.....	19.375	16.215	18.687	8.898	20.539	13.292
1878.....	20.056	17.303	20.416	9.354	21.400	14.151
1879.....	20.542	17.963	23.210	13.101	23.335	16.334
1880.....	24.032	19.956	23.062	16.005	26.078	20.214
1881.....	24.464	20.457	22.039	15.546	25.820	20.436
1882.....	24.148	19.882	21.474	15.034	25.304	19.524
1883.....	24.299	19.152	21.081	14.776	25.290	19.007
1884.....	24.373	19.085	20.706	14.888	25.192	19.020
1885.....	24.810	19.028	21.209	14.534	26.097	19.168
1886.....	25.727	20.028	22.823	15.809	27.495	20.238
1887.....	26.055	20.828	23.775	16.225	28.723	21.348
1888.....	29.087	22.909	26.236	15.308	31.858	22.039
1889.....	29.331	22.367	25.433	14.733	31.869	21.755
1890.....	28.788	22.129	26.579	15.821	31.015	21.413
1891.....	28.982	21.691	25.963	14.864	31.386	20.974
1892.....	29.431	22.098	26.485	15.103	29.684	17.827
1893.....	29.805	22.335	26.735	14.589	30.275	18.368
1894.....	29.992	22.264	26.956	13.717	30.854	17.759
1895.....	30.056	22.559	26.739	13.746	30.522	17.753
1896.....	30.200	22.418	26.693	14.512	29.974	19.109
1897.....	30.693	21.106	26.727	14.287	29.967	18.613
1898.....	29.478	20.751	26.118	13.287	29.222	17.265
1899.....	26.627	19.842	26.339	13.241	28.652	17.157
1900.....	25.583	18.235	25.032	13.217	27.634	16.715
1901.....	24.748	18.322	24.835	12.424	27.427	16.355
1902.....	24.027	17.188	25.182	13.207	27.265	16.466
1903.....	23.316	16.739	24.905	13.254	27.064	16.468
1904.....	24.117	17.559	25.217	13.674	27.426	16.765
1905.....	24.770	18.513	26.118	13.501	27.692	16.610
1906.....	24.601	18.709	24.779	13.144	26.835	16.393
1907 (9 mos.)...	24.252	18.355	24.167	12.843	26.339	16.038
1908.....	24.245	18.286	24.585	13.258	26.582	16.480
1909.....	25.755	19.028	24.868	13.247	27.315	16.586
1910.....	25.107	18.914	24.837	13.570	26.713	16.416
1911.....	24.561	18.881	24.737	13.773	25.797	16.145
1912.....	24.988	19.132	24.978	14.883	25.963	16.694
1913.....	25.133	19.574	24.945	15.818	25.928	17.087
1914.....	25.217	19.547	24.809	15.648	25.982	17.235
1915.....	27.124	20.461	25.101	14.272	27.195	16.706
1916.....	28.423	19.098	25.021	13.471	27.032	15.403

## TRADE AND COMMERCE.

## 21.—Value of Imports entered for consumption at certain Ports during the fiscal year ended March 31, 1916.

Ports.	Dutiable goods.	Free goods.	Total.
Brantford.....	\$1,639,144	\$1,691,790	\$3,330,934
Calgary.....	2,364,950	760,436	3,125,386
Dawson.....	397,809	153,077	550,886
Halifax.....	5,987,819	3,885,490	9,873,309
Hamilton.....	13,329,367	12,448,225	25,777,592
London.....	3,536,717	3,798,759	7,335,476
Montreal.....	70,533,920	58,605,897	129,139,817
Ottawa.....	4,373,049	13,472,762	17,845,811
Quebec.....	4,938,647	7,007,317	11,945,964
Sault Ste. Marie.....	2,411,825	1,166,590	3,578,415
St. John, N.B.....	6,608,944	4,448,078	11,057,022
St. Johns, Que.....	794,321	3,026,395	3,820,716
Sydney.....	1,391,903	583,053	1,974,956
Toronto.....	66,500,789	46,546,560	113,047,349
Vancouver.....	12,443,312	7,513,222	19,956,534
Victoria, B.C.....	2,263,494	5,006,059	7,269,553
Windsor, Ont.....	13,033,880	3,853,771	16,887,651
Winnipeg.....	19,408,511	4,849,312	24,257,823
Totals.....	231,958,401	178,816,793	410,775,194

## 22.—Value of Exports of Canadian produce by principal ports during the fiscal year ended March 31, 1916.

Ports.	Value.	Ports.	Value.
Abercorn.....	\$12,080,843	Quebec.....	\$3,577,012
Bridgeburg.....	30,309,501	Rossland.....	58,517
Coaticook.....	29,624,734	St. Armand.....	4,983,240
Fort William.....	81,280,414	St. Johns, Que.....	18,991,667
Halifax.....	26,330,211	St. John, N.B.....	119,490,818
Athelstan.....	5,757,989	Sault Ste. Marie.....	10,657,202
Montreal.....	173,436,739	Sydney.....	7,262,941
Nanaimo.....	2,607,837	Vancouver.....	15,031,892
New Westminster.....	2,511,269	Winnipeg.....	180,967
Niagara Falls.....	39,847,461		
Prescott.....	11,872,088	Totals.....	595,893,342

## 23.—Value of Total Exports and Imports, Imports entered for consumption and amount of duty collected, by Provinces, during the fiscal year ended March 31, 1916.

Provinces.	Total Exports.	Total Imports.	Imports entered for consumption.	Duty collected.
Ontario.....	\$360,480,204	\$277,229,141	\$273,540,377	\$50,018,747
Quebec.....	279,039,923	180,356,089	161,627,839	29,016,813
Nova Scotia.....	46,681,013	18,516,375	18,210,396	3,929,987
New Brunswick.....	131,241,957	14,852,932	14,772,757	3,330,306
Manitoba.....	13,452,106	26,429,713	26,637,882	6,965,764
British Columbia.....	39,153,586	33,142,569	33,025,924	6,751,130
Prince Edward Island.....	428,106	713,629	718,262	153,324
Alberta.....	344,491	6,292,677	6,489,378	1,943,666
Saskatchewan.....	8,986,038	6,270,886	6,337,007	1,635,639
Yukon.....	3,065,078	667,987	683,741	183,526
Totals.....	882,872,502	564,471,998	542,043,563	103,928,902
Prepaid postal parcels: duty received through Post Office Department.....	—	33,798	33,798	11,199
Grand Total.....	882,872,502	564,505,796	542,077,361	103,940,101

NOTE.—Under regulations which went into effect July 1, 1900, all export entries are delivered at the frontier port of exit, and the totals are credited to the respective ports where the goods pass outwards from Canada.

## IMPORTS OF CANADA.

## 24.—Imports of certain Articles of Raw Material for home consumption, 1902-1916.

Fiscal Year.	Rags, all kinds.	Broom corn. <sup>1</sup>	Hides, horns, pelts etc. <sup>1</sup>	Sugar, raw.	Tobacco, raw.
	Cwt.	\$	\$	Ton.	Lb.
1902.....	367,373	202,487	5,086,052	159,348	11,329,674
1903.....	241,286	165,231	5,662,744	180,849	13,380,504
1904.....	254,484	197,982	4,916,222	183,405	14,248,303
1905.....	1,116,215	175,412	5,240,717	163,717	13,859,152
1906.....	1,697,801	196,084	6,811,267	210,215	14,519,658
1907 (9 months).....	156,102	167,654	5,843,511	142,334	14,347,476
1908.....	323,453	238,513	4,908,871	217,281	15,690,076
1909.....	256,617	246,701	5,218,108	226,712	15,994,878
1910.....	496,057	432,146	8,237,014	231,152	13,753,141
1911.....	536,604	389,173	8,105,330	271,532	17,204,271
1912.....	564,296	437,001	8,903,727	281,402	17,203,513
1913.....	750,003	377,462	13,486,459	310,101	22,153,588
1914.....	716,882	324,590	8,831,010	347,168	17,598,449
1915.....	540,922	285,574	12,842,558	335,820	18,595,957
1916.....	510,472	337,688	12,441,731	298,433	20,834,672

Fiscal Year.	Cotton wool or raw cot- ton and waste.	Hemp, undressed.	Wool, raw.	Gutta per- cha, India- rubber, etc., crude.
	Cwt.	Cwt.	Cwt.	Cwt.
1902.....	693,578	160,794	103,607	29,104
1903.....	735,760	129,856	79,947	28,615
1904.....	557,765	123,885	73,394	32,134
1905.....	636,594	102,529	76,172	28,103
1906.....	675,495	123,857	63,118	24,916
1907 (9 months).....	662,548	75,037	39,288	20,021
1908.....	522,552 <sup>2</sup>	145,969	61,292	25,562
1909.....	653,160 <sup>2</sup>	69,553 <sup>3</sup>	56,839	20,391
1910.....	680,835 <sup>2</sup>	58,911 <sup>3</sup>	74,271	35,555
1911.....	812,622 <sup>2</sup>	81,017 <sup>3</sup>	64,224	28,035
1912.....	727,939 <sup>2</sup>	82,661 <sup>3</sup>	71,954	44,313
1913.....	774,578 <sup>2</sup>	64,990 <sup>3</sup>	92,092	56,655
1914.....	769,930 <sup>2</sup>	55,572 <sup>3</sup>	72,521	44,504
1915.....	730,325 <sup>2</sup>	55,370 <sup>3</sup>	131,940	65,045
1916.....	969,679 <sup>2</sup>	50,914 <sup>3</sup>	211,407	99,132

<sup>1</sup>Value only; the Trade and Navigation Returns do not give quantities.<sup>2</sup>Cotton waste included with rags all kinds. <sup>3</sup>Includes dressed hemp.



## TRADE AND COMMERCE.

25.—Imports of Canada by values entered for consumption from British Empire and Foreign Countries under the General, Preferential and Treaty Rate Tariffs in the four fiscal years 1913-1916.

Countries.	1913.			1914.		
	General.	Preferential.	Treaty rates.	General.	Preferential.	Treaty rates.
	\$	\$	\$	\$	\$	\$
<b>British Empire, totals.....</b>	<b>12,054,040</b>	<b>102,374,150</b>	<b>4,686,470</b>	<b>12,752,492</b>	<b>94,804,984</b>	<b>4,111,829</b>
United Kingdom....	11,241,875	92,232,882	4,583,851	11,541,414	86,787,609	4,046,844
Australia.....	222,396	—	29,018	418,387	—	37,183
British West Indies.....	38,683	4,249,758	—	76,444	2,157,069	—
British Guiana.....	20,179	3,528,759	—	25,095	3,147,470	—
India.....	23,114	131,729	—	26,690	156,334	—
New Zealand.....	15,363	1,586,262	—	72,724	1,904,016	60
Fiji Islands....	—	269,845	—	—	239,182	—
Hong Kong....	452,871	—	73,243	534,223	—	27,219
Other Possessions.....	38,559	374,915	358	57,515	403,304	523
<b>Foreign Countries, totals..</b>	<b>309,474,754</b>	<b>—</b>	<b>13,017,471</b>	<b>285,332,926</b>	<b>—</b>	<b>13,256,513</b>
Austria-Hungary....	953,556	—	628,168	1,010,740	—	689,661
Cuba.....	2,024,618	—	—	3,512,587	—	—
Dutch East Indies.....	2,957,287	—	—	877,017	—	—
Belgium.....	2,096,918	—	438,871	2,520,708	—	456,876
France.....	5,324,789	—	6,352,913	5,408,961	—	6,505,128
Germany.....	10,082,199	—	—	11,151,601	—	—
Holland.....	1,419,498	—	33,379	1,612,349	—	30,442
Japan.....	1,422,204	—	695,942	729,558	—	734,412
Spain.....	698,053	—	505,170	778,828	—	494,815
Switzerland....	733,055	—	3,495,207	952,496	—	3,300,465
United States.....	276,330,434	—	—	249,482,610	—	—
Brazil.....	13,675	—	—	2,370	—	—
China.....	211,632	—	—	344,029	—	—
Danish W. Indies.....	240,687	—	—	259,368	—	—
Greece.....	545,355	—	—	444,811	—	—
Italy.....	792,328	—	419,043	894,660	—	533,857
Norway.....	139,511	—	287,095	161,043	—	285,470
Peru.....	314,686	—	—	747,546	—	—
Portugal.....	273,957	—	—	256,163	—	—
San Domingo.....	1,803,963	—	—	2,942,333	—	—
Sweden.....	283,178	—	121,045	324,075	—	191,352
Turkey.....	407,864	—	—	397,234	—	—
Other countries....	405,307	—	40,638	521,834	—	34,035

## IMPORTS OF CANADA.

25.—Imports of Canada by values entered for consumption from British Empire and Foreign Countries under the General, Preferential and Treaty Rate Tariffs in the four fiscal years 1913-1916—concluded.

Countries.	1915.			1916.		
	General.	Preferential.	Treaty rates.	General.	Preferential.	Treaty rates.
	\$	\$	\$	\$	\$	\$
<b>British Empire, totals.....</b>	<b>7,880,372</b>	<b>69,441,881</b>	<b>3,088,197</b>	<b>6,573,791</b>	<b>58,718,542</b>	<b>2,549,989</b>
United Kingdom....	6,788,775	58,170,806	3,051,676	4,913,224	44,561,924	2,533,930
Australia.....	183,641	—	7,679	32,154	—	524
British West Indies.....	54,075	4,336,684	5	156,974	4,463,552	3
British Guiana.....	43,868	2,936,246	1	65,236	5,566,437	—
India.....	68,955	757,745	—	99,646	2,272,677	—
New Zealand.....	87,571	1,208,772	—	13,518	337,962	—
Fiji Islands..	—	1,780,368	—	—	1,262,718	—
Hong Kong...	603,057	—	28,717	458,541	—	15,532
Other Possessions.....	50,430	251,260	119	934,498	253,272	—
<b>Foreign Countries, totals</b>	<b>190,521,430</b>	<b>—</b>	<b>8,860,315</b>	<b>214,168,150</b>	<b>—</b>	<b>7,356,055</b>
Austria-Hungary....	349,762	—	260,919	2,718	—	305
Cuba.....	1,384,407	—	—	1,304,904	—	—
Dutch East Indies.....	116,153	—	—	31,315	—	—
Belgium.....	1,050,777	—	173,042	32,719	—	13,694
France.....	3,539,598	—	3,651,585	2,142,947	—	2,810,256
Germany.....	3,887,906	—	—	41,126	—	—
Holland.....	1,206,806	—	22,699	772,148	—	9,975
Japan.....	660,811	—	641,181	815,983	—	1,361,963
Spain.....	477,561	—	423,686	272,702	—	256,579
Switzerland..	833,960	—	3,086,427	764,117	—	2,710,184
United States	168,658,299	—	—	199,466,665	—	—
Brazil.....	723,754	—	—	855,778	—	—
China.....	228,927	—	—	263,621	—	—
Danish W. Indies.....	115,469	—	—	58,351	—	—
Greece.....	415,953	—	—	327,621	—	—
Italy.....	734,251	—	321,265	584,723	—	48,831
Norway.....	112,045	—	204,699	73,882	—	136,748
Peru.....	1,407,350	—	—	789,223	—	—
Portugal.....	196,395	—	—	164,051	—	—
San Domingo.	3,193,796	—	—	4,020,491	—	—
Sweden.....	347,979	—	63,309	107,469	—	4,772
Turkey.....	306,849	—	—	42,248	—	—
Other countries.....	572,622	—	11,503	1,233,348	—	2,748

## TRADE AND COMMERCE.

26.—Trade of Canada by Classes of Produce, compared as to Quantity and Value, for 1915 and 1916 ("000" omitted).

	Actual Value 1916.	Value at prices of 1915.	Actual Value 1915.	Increase (+) or Decrease (—)		Due to higher (+) or lower (—) prices		Due to larger (+) or smaller (—) quantities.	
				\$	p.c.	\$	p.c.	\$	p.c.
A. EXPORTS.									
Agricultural produce.....	249,661	231,695	134,746	+114,915	+ 85.3	+17,966	+ 7.7	+ 96,949	+ 71.9
Animals and their produce.....	102,882	92,115	74,391	+ 28,491	+ 38.3	+10,767	+11.7	+17,724	+ 23.8
Fisheries produce.....	22,378	23,157	19,687	+ 2,691	+ 13.6	— 779	— 3.4	+ 3,470	+ 17.6
Forest produce.....	51,271	51,104	42,651	+ 8,620	+ 20.3	+ 167	+ 0.3	+ 8,453	+ 19.8
Manufactures.....	242,035	228,848	85,540	+156,495	+182.9	+13,187	+ 5.8	+143,308	+167.5
Mineral produce.....	66,590	64,887	51,741	+14,849	+ 28.7	+ 1,703	+ 2.6	+13,146	+ 25.4
Miscellaneous.....	6,793	6,407	664	+ 6,129	+923.0	+ 386	+ 5.7	+ 5,743	+864.9
Total Exports.....	741,610	698,213	409,420	+ 332,190	+ 81.1	+ 43,397	+ 6.2	+ 288,793	+ 70.5
B. IMPORTS.									
Agricultural produce.....	54,018	51,268	52,449	+ 1,569	+ 3.0	+ 2,750	+ 5.4	— 1,181	— 2.3
Animals and their produce.....	37,556	34,278	27,874	+ 9,682	+ 34.7	+ 3,278	+ 9.6	+ 6,404	+ 23.0
Fisheries produce.....	1,591	1,568	1,856	— 265	— 14.3	+ 23	+ 1.5	— 288	— 15.5
Forest produce.....	5,240	5,422	9,614	— 4,374	— 45.5	— 182	— 3.3	— 4,192	— 43.6
Manufactures.....	305,475	276,790	286,214	+19,261	+ 6.7	+28,685	+10.3	+ 9,424	+ 3.3
Mineral produce.....	48,023	57,590	54,171	— 6,148	— 11.3	— 9,567	—16.6	+ 3,419	+ 6.3
Miscellaneous.....	55,914	52,721	23,267	+32,647	+140.3	+ 3,193	+ 6.0	+29,454	+126.6
Total Imports.....	507,817	479,637	455,445	+ 52,372	+ 11.5	+ 28,180	+ 5.9	+ 24,192	+ 5.3
C. TOTAL.									
Agricultural produce.....	303,679	282,963	187,195	+116,484	+ 62.2	+20,716	+ 7.3	+ 95,768	+ 51.2
Animals and their produce.....	140,438	126,393	102,265	+ 38,173	+ 37.3	+14,045	+11.1	+ 24,128	+ 23.5
Fisheries produce.....	23,969	24,725	21,543	+ 2,426	+ 11.3	— 756	— 3.1	+ 3,182	+ 14.8
Forest produce.....	56,511	56,526	52,265	+ 4,246	+ 8.1	— 15	—	+ 4,261	+ 8.1
Manufactures.....	547,510	505,638	371,754	+175,756	+ 47.3	+41,872	+ 8.2	+133,884	+ 36.0
Mineral produce.....	114,613	122,477	105,912	+ 8,701	+ 8.2	— 7,864	— 6.4	+16,565	+ 15.6
Miscellaneous.....	62,707	59,128	23,931	+ 38,776	+162.0	+ 3,579	+ 6.1	+ 35,197	+147.1
Total Exports and Imports.....	1,249,427	1,177,850	864,865	+384,562	+ 44.5	+71,577	+ 6.1	+ 312,985	+ 36.1

NOTE.—In the above table the exports are the produce of Canada, exclusive of coin and bullion, and the imports are for home consumption. Values are expressed in thousands of dollars, and the period covered is the fiscal year ended March 31.

## AGGREGATE TRADE OF CANADA.

27.—Aggregate Trade of Canada by Countries during the fiscal year ended March 31, 1916.

Countries.	Total Exports.	Imports for Home Consumption	Total Trade.
<b>British Empire—</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
United Kingdom.....	463,081,241	77,404,361	540,485,602
Australia.....	7,773,209	1,062,752	8,835,961
Bermuda.....	448,481	28,951	477,432
British East and West Africa.....	205,239	3,302	208,541
British South Africa.....	5,509,081	175,879	5,684,960
British East Indies, all other.....	44,217	1,793,067	1,837,284
British West Indies.....	4,134,901	6,257,963	10,392,864
British Guiana.....	1,211,904	5,636,630	6,848,534
Fiji Islands.....	197,078	1,262,718	1,423,796
Gibraltar.....	1,437,634	—	1,437,634
British Honduras.....	3,487	476,601	480,088
Straits Settlements.....	281,734	254,622	536,356
Hong Kong.....	813,973	1,247,529	2,061,502
India.....	916,314	4,732,772	5,649,086
Newfoundland.....	5,066,924	1,576,615	6,643,539
New Zealand.....	3,361,999	3,310,334	6,672,333
Other British Possessions.....	58,967	5,881	64,848
<b>Total British Empire.....</b>	<b>494,546,383</b>	<b>105,229,977</b>	<b>599,776,360</b>
<b>Foreign countries—</b>			
Alaska.....	356,266	6,360	362,626
Argentina.....	2,398,655	3,971,271	6,369,926
Belgium.....	334,762	59,315	394,077
Brazil.....	1,142,105	883,832	2,025,937
Central American States.....	61,396	133,206	194,602
Chile.....	88,634	169,284	257,918
China.....	536,482	918,610	1,455,092
Cuba.....	1,431,290	1,540,519	2,971,809
Denmark.....	112,988	45,849	158,837
Danish West Indies.....	7,537	58,351	65,888
Dutch East Indies.....	272,710	169,169	441,879
Dutch Guiana.....	49,875	372,248	422,123
Egypt and Soudan.....	39,839	6,512	46,351
France.....	36,085,813	5,949,385	42,035,198
French West Indies.....	103,895	—	103,895
Greece.....	222,330	338,836	561,166
Hawaii.....	39,539	22,107	61,646
Holland.....	2,563,626	1,057,733	3,621,359
Italy.....	10,733,288	920,271	11,653,559
Japan.....	998,240	4,015,125	5,013,365
Mexico.....	87,163	623,281	710,444
Norway.....	458,542	279,091	737,633
Panama.....	153,556	—	153,556
Peru.....	47,262	1,162,403	1,209,665
Porto Rico.....	702,716	3	702,719
Portugal.....	56,726	207,634	264,360
Russia.....	6,737,152	123,904	6,861,056
Santo Domingo.....	12,919	4,020,491	4,033,410
St. Pierre and Miquelon.....	171,570	4,932	176,502
Spain.....	634,998	617,025	1,252,023
Sweden.....	53,440	162,671	216,111
Switzerland.....	979,103	3,525,117	4,504,220
Uruguay.....	33,801	280,437	314,238
United States.....	216,669,262	370,496,574	587,165,836
U.S. of Colombia.....	32,259	137,470	169,729
Venezuela.....	98,567	115,358	213,925
Other Foreign countries.....	246,081	192,808	438,889
<b>Total Foreign countries.....</b>	<b>284,753,687</b>	<b>402,587,182</b>	<b>687,340,869</b>
<b>Total imports and exports.....</b>	<b>779,300,070</b>	<b>507,817,159</b>	<b>1,287,117,229</b>



## TRADE AND COMMERCE.

28.—Aggregate Trade of Canada by Countries during the fiscal year ended March 31, 1917.

Countries.	Total Exports. <sup>1</sup>	Imports for Home Consumption <sup>2</sup>	Total Trade.
British Empire—	\$	\$	\$
United Kingdom.....	756,071,059	107,071,181	863,142,240
Australia.....	6,576,725	762,113	7,338,838
Bermuda.....	602,503	12,770	615,273
British East and West Africa.....	294,527	68	294,595
British South Africa.....	4,452,939	221,476	4,674,415
British East Indies, all other.....	27,827	1,132,706	1,160,533
British West Indies.....	5,179,083	14,239,595	19,418,678
British Guiana.....	1,639,470	7,192,893	8,832,363
Gibraltar.....	2,808,554	—	2,808,554
Straits Settlements.....	333,390	841,195	1,174,585
Hong Kong.....	605,068	1,398,984	2,004,052
India.....	1,098,356	4,925,882	6,024,238
Newfoundland.....	6,768,740	2,147,808	8,916,548
New Zealand.....	3,333,910	2,242,515	5,576,425
Other British Possessions.....	190,283	1,908,894	2,099,177
<b>Total British Empire.....</b>	<b>789,982,434</b>	<b>144,098,080</b>	<b>934,080,514</b>
Foreign countries			
Alaska.....	573,233	19,572	592,805
Argentina.....	1,674,660	2,702,071	4,376,731
Belgium.....	664,722	14,896	679,618
Brazil.....	1,062,545	1,062,485	2,125,030
Central American States.....	79,629	351,350	430,979
Chile.....	508,177	198,357	706,534
China.....	418,399	1,128,342	1,546,741
Cuba.....	3,014,322	610,807	3,625,129
Denmark.....	112,265	30,460	142,725
Danish West Indies.....	24,910	107	25,017
Dutch East Indies.....	332,785	620,188	952,973
Dutch Guiana.....	71,612	4,549	76,161
Egypt and Soudan.....	160,295	11,341	171,636
France.....	66,652,910	6,481,098	73,134,008
French Africa.....	8,744	140	8,884
French West Indies.....	187,093	—	187,093
Greece.....	19,309	160,472	179,781
Hawaii.....	254,065	55,697	309,762
Holland.....	1,569,314	1,234,993	2,804,307
Italy.....	11,468,599	1,227,007	12,695,606
Japan.....	1,282,115	8,122,735	9,404,850
Korea.....	106,850	—	106,850
Mexico.....	80,390	677,551	757,941
Norway.....	966,153	325,239	1,291,392
Panama.....	271,022	—	271,022
Peru.....	246,863	1,653,290	1,900,153
Philippines.....	12,808	40,324	53,132
Porto Rico.....	720,494	5,388	725,882
Portugal.....	209,689	200,094	469,783
Russia.....	4,185,822	24,140	4,209,962
Santo Domingo.....	39,827	3,888,807	3,928,634
St. Pierre and Miquelon.....	209,784	5,362	215,146
Spain.....	331,179	909,546	1,240,725
Sweden.....	18,215	99,838	118,053
Switzerland.....	673,390	4,499,321	5,172,711
Uruguay.....	68,549	146,619	215,168
United States.....	290,578,773	664,219,653	954,798,426
Venezuela.....	238,965	157,084	396,049
Other Foreign countries.....	282,943	286,427	569,370
<b>Total foreign countries.....</b>	<b>389,381,419</b>	<b>701,235,350</b>	<b>1,090,616,769</b>
<b>Total imports and exports.....</b>	<b>1,179,363,853</b>	<b>845,333,430</b>	<b>2,024,697,283</b>

<sup>1</sup>Includes \$152,753 Coin and Bullion not specified by Countries.<sup>2</sup>Includes \$2,527 Coin and Bullion not specified by Countries.

## EXPORTS OF CANADA.

29.—Values of Exports from Canada of Home Produce to the British Empire and to Foreign Countries in the five fiscal years 1913-1917.

Countries.	1913.	1914.	1915.	1916.	1917. <sup>1</sup>
	\$	\$	\$	\$	\$
<b>British Empire—total..</b>	<b>190,181,667</b>	<b>238,642,721</b>	<b>210,550,854</b>	<b>482,490,440</b>	<b>775,666,086</b>
United Kingdom....	170,161,903	215,254,023	186,668,599	451,852,399	742,147,555
Australia.....	3,954,481	4,673,997	5,522,594	7,748,051	6,549,546
New Zealand.....	1,694,408	1,933,698	2,619,556	3,307,404	3,302,240
Bermuda.....	414,644	383,151	357,712	435,615	585,634
British Africa.....	3,465,892	3,927,384	4,686,556	5,661,390	4,742,329
British Guiana.....	627,244	649,675	675,660	1,207,134	1,631,395
British Honduras...	10,252	9,298	9,450	3,355	2,562
British India.....	226,184	416,373	415,105	904,889	1,094,046
Straits Settlements.	228,606	230,455	245,355	281,734	333,390
East Indies, all other	7,243	39,496	23,905	44,217	27,827
British West Indies.	3,915,172	4,469,329	4,333,095	4,115,872	5,163,278
Fiji.....	144,898	118,441	112,355	196,308	155,653
Gibraltar.....	36,919	38,004	210,303	1,073,156	2,808,554
Hong Kong.....	774,954	1,879,261	653,878	779,558	494,462
Newfoundland.....	4,472,717	4,508,240	3,976,160	4,820,395	6,602,389
All other.....	46,150	111,896	40,571	58,963	25,226
<b>Foreign countries—total</b>	<b>165,572,933</b>	<b>192,946,937</b>	<b>198,868,649</b>	<b>259,120,513</b>	<b>375,795,769</b>
Alaska.....	345,140	134,238	297,282	331,558	462,511
Argentina.....	2,251,855	2,134,522	634,387	2,398,628	1,673,575
Austria-Hungary...	154,165	368,425	220,654	—	—
Belgium.....	4,241,568	4,269,394	2,220,709	334,762	664,722
Brazil.....	974,462	767,858	541,998	1,059,700	1,028,163
Central Am. States <sup>2</sup> .	103,480	113,482	72,760	61,396	79,639
Chile.....	136,107	134,457	55,302	88,634	518,177
China.....	740,690	473,074	294,251	536,332	408,002
Denmark.....	785,606	637,286	529,690	111,432	111,044
Dutch East Indies..	11,578	20,366	25,927	272,710	332,785
Egypt and Soudan..	35,947	62,677	26,484	39,493	160,295
France.....	2,357,154	3,632,444	10,499,680	33,703,183	64,039,192
French Africa.....	65,409	57,105	4,170	12,536	8,744
Germany.....	3,049,105	4,044,019	1,447,391	—	—
Greece.....	65,658	11,934	87,485	222,330	19,309
Hawaii.....	76,498	29,672	70,591	35,756	247,752
Holland.....	2,880,983	3,985,987	1,623,405	1,815,950	1,561,480
Italy.....	328,148	514,660	521,802	6,572,687	11,226,051
Japan.....	1,137,867	1,587,467	963,631	996,575	1,205,067
Mexico.....	218,371	51,747	18,551	72,819	70,330
Norway.....	673,304	845,331	1,000,715	458,530	964,552
Peru.....	11,120	11,817	13,141	47,182	246,791
Philippines.....	75,404	60,806	41,574	7,323	12,808
Portugal.....	49,142	55,481	25,206	56,726	209,689
Russia in Europe...	2,145,211	1,368,939	1,270,941	4,874,152	3,755,569
St. Pierre & Miquelon	155,927	114,827	141,097	154,920	187,661
Spain.....	48,628	63,995	243,001	634,977	326,179
Sweden.....	121,582	177,313	172,796	53,440	18,215

<sup>1</sup> Subject to revision.

<sup>2</sup> Guatemala, Salvador, Honduras, Nicaragua and Costa Rica.

## TRADE AND COMMERCE.

## 29.—Values of Exports from Canada of Home Produce to the British Empire and to Foreign Countries in the five fiscal years 1913-1917—concluded.

Countries.	1913.	1914.	1915.	1916.	1917 <sup>1</sup> .
	\$	\$	\$	\$	\$
<b>Foreign countries—con.</b>					
Switzerland.....	7,599	21,439	11,853	224,535	672,508
Turkey in Asia.....	8,453	11,588	3,979	—	—
United States.....	139,725,953	163,373,840	173,320,798	201,106,603	280,616,482
Uruguay.....	160,636	90,615	52,820	33,101	58,549
Venezuela.....	65,892	139,264	56,196	98,567	238,911
West Indies—Cuba..	1,496,857	1,815,414	1,482,649	1,419,087	2,967,053
Danish W. Indies..	17,870	15,207	13,536	7,537	24,910
Porto Rico.....	609,375	542,962	468,698	699,460	719,918
Santo Domingo...	53,050	59,721	3,938	12,919	39,827
Other West Indies	67,083	60,934	43,489	113,715	213,831
<b>All other.....</b>	<b>620,056</b>	<b>1,086,630</b>	<b>346,072</b>	<b>451,258</b>	<b>705,488</b>

## 30.—Values of Imports into Canada of Merchandise entered for Consumption from the British Empire and from Foreign Countries in the five fiscal years 1913-1917; also of Coin and Bullion.

Countries.	1913.	1914.	1915.	1916.	1917 <sup>1</sup> .
	\$	\$	\$	\$	\$
<b>British Empire—total..</b>	<b>162,541,284</b>	<b>154,526,802</b>	<b>115,342,706</b>	<b>105,229,977</b>	<b>144,098,080</b>
United Kingdom....	138,742,767	132,070,362	90,158,119	77,404,361	107,071,181
Australia.....	443,381	713,111	412,205	1,062,752	762,113
New Zealand.....	3,066,699	3,192,900	3,908,616	3,310,334	2,242,515
Bermuda.....	34,724	7,539	23,923	28,951	12,770
British Africa.....	272,199	522,916	338,403	179,181	221,544
British Guiana.....	3,550,765	3,179,112	2,993,534	5,636,630	7,192,893
British Honduras...	296,122	155,396	497,786	476,601	1,065,953
British India.....	4,653,244	5,006,309	4,133,847	4,732,772	4,925,882
Straits Settlements.	519,624	565,843	775,716	254,622	841,195
East Indies, all other	1,725,588	1,646,835	1,637,985	1,793,067	1,132,706
British West Indies.	5,982,406	4,347,310	6,162,338	6,257,963	14,239,595
Fiji.....	271,919	240,719	1,780,368	1,262,718	831,890
Hong Kong.....	894,550	1,010,021	1,248,575	1,247,529	1,398,984
Newfoundland.....	2,056,174	1,840,523	1,242,800	1,576,615	2,147,808
<b>All other.....</b>	<b>31,122</b>	<b>27,906</b>	<b>28,491</b>	<b>5,881</b>	<b>11,051</b>

<sup>1</sup> Subject to revision.

## IMPORTS OF CANADA.

30.—Values of Imports into Canada of Merchandise entered for Consumption from the British Empire and from Foreign Countries in the five fiscal years 1913-1917; also of Coin and Bullion—concluded.

Countries.	1913.	1914.	1915.	1916.	1917 <sup>1</sup> .
	\$	\$	\$	\$	\$
<b>Foreign countries—total</b>	<b>507,547,782</b>	<b>463,930,342</b>	<b>340,103,606</b>	<b>402,587,182</b>	<b>701,235,350</b>
Alaska.....	46,577	66,470	38,292	6,360	19,572
Argentina.....	4,166,895	2,603,128	3,364,787	3,971,271	2,702,071
Austria-Hungary...	1,700,429	1,773,021	642,182	3,156	1,390
Belgium.....	4,020,178	4,490,476	1,875,963	59,315	14,896
Brazil.....	1,295,521	1,163,785	1,149,551	883,832	1,062,485
Central Am. States <sup>2</sup>	182,497	163,483	118,017	133,206	351,350
Chile.....	625,021	767,289	190	169,284	198,357
China.....	752,768	913,262	1,042,383	918,610	1,128,342
Denmark.....	117,078	112,629	44,344	45,849	30,460
Dutch East Indies..	3,209,394	976,090	197,742	169,169	620,188
Dutch Guiana.....	64,330	216,126	186,376	372,248	4,549
Egypt and Soudan..	51,640	49,064	30,482	6,512	11,341
France.....	15,375,848	14,276,535	8,449,186	5,949,385	6,481,098
French Africa.....	5,429	41,505	8,361	474	140
Germany.....	14,214,547	14,586,223	5,086,986	86,304	14,132
Greece.....	545,595	445,036	417,911	338,836	160,472
Hawaii.....	44,689	61,365	32,655	22,107	55,697
Holland.....	3,109,554	3,015,456	1,769,256	1,057,733	1,234,993
Italy.....	1,713,585	2,090,387	1,472,799	920,271	1,237,001
Japan.....	3,503,533	2,604,216	2,783,465	4,015,125	8,122,735
Mexico.....	3,104,072	1,471,182	1,229,977	623,281	677,551
Norway.....	488,139	486,379	385,647	279,091	325,239
Peru.....	314,686	748,546	1,494,046	1,162,403	1,653,290
Philippines.....	23,640	5,715	6,204	12,359	40,324
Portugal.....	343,249	277,381	215,608	207,634	260,094
Russia in Europe...	924,223	482,809	105,455	123,904	24,140
St. Pierre & Miquelon	4,068	6,068	4,244	4,932	5,362
Spain.....	1,258,970	1,352,133	977,448	617,025	909,546
Sweden.....	472,378	603,401	545,835	162,671	99,838
Switzerland.....	4,296,702	4,314,805	3,979,256	3,525,117	4,499,321
Turkey in Asia.....	521,509	479,269	323,227	42,248	243
United States.....	435,769,050	395,565,328	296,632,506	370,496,574	664,219,653
Uruguay.....	160,642	55,726	12,781	280,437	146,619
Venezuela.....	202,750	133,243	209,626	115,358	157,084
West Indies—Cuba..	2,549,673	3,952,887	1,617,291	1,540,519	610,807
Danish W. Indies.	240,687	259,368	115,469	58,351	107
Porto Rico.....	99	1,613	—	3	5,388
Santo Domingo..	1,803,963	2,942,333	3,193,796	4,020,491	3,888,807
Other West Indies	138	473	—	—	—
All other.....	324,036	376,137	344,262	192,249	270,662
<b>Coin and Bullion...</b>	<b>5,427,979</b>	<b>15,235,305</b>	<b>131,992,992</b>	<b>34,260,202</b>	<b>28,081,120</b>

<sup>1</sup>Subject to revision.<sup>2</sup>Guatemala, Salvadora, Honduras, Nicaragua and Costa Rica.



## TRADE AND COMMERCE.

31.—Value of Merchandise imported into and exported from Canada through the United States during the fiscal years ended March 31, 1915-1916.

Countries whence imported and to which exported.	Merchandise imported through United States.		Merchandise exported through United States.	
	1915.	1916.	1915.	1916.
	\$	\$	\$	\$
United Kingdom.....	4,853,119	3,521,227	60,433,803	160,343,386
Australia.....	16,790	5,039	1,322,414	3,005,348
British Africa.....	293,435	157,494	492,514	1,043,080
British India.....	1,257,848	1,142,660	289,373	879,912
British East Indies.....	960,383	941,834	19,262	44,217
British Guiana.....	735,390	1,689,949	103,576	152,381
British Honduras.....	79,596	288,317	9,450	3,355
British West Indies.....	784,811	1,784,134	1,346,956	1,076,697
New Zealand.....	95,520	6,284	260,815	726,347
Straits Settlements.....	67,440	163,698	98,781	160,293
Other British Possessions.....	12,783	73,649	174,368	354,860
<b>Total British Empire.....</b>	<b>9,157,115</b>	<b>9,774,285</b>	<b>64,551,312</b>	<b>167,789,876</b>
Argentina.....	1,500,270	2,938,920	328,489	1,832,485
Austria-Hungary.....	28,835	570	34,658	—
Belgium.....	134,711	35,018	67,860	267,579
Brazil.....	631,306	467,684	258,041	803,670
Central American States.....	9,272	46,917	70,552	58,480
Chile.....	190	—	43,653	70,094
China.....	534,678	365,968	9,054	54,376
Cuba.....	372,421	218,213	465,028	456,880
Denmark.....	10,448	29,689	391,054	93,387
Danish West Indies.....	69	58,236	13,549	7,314
Dutch East Indies.....	37,300	53,847	9,660	251,513
Dutch Guiana.....	68,809	307,144	32,958	34,117
French West Indies.....	—	—	32,479	103,676
Egypt and Soudan.....	19,526	2,783	6,940	31,375
France.....	672,859	408,803	3,059,963	12,642,300
French Africa.....	7,155	—	4,170	12,536
Germany.....	818,240	5,263	505,597	—
Greece.....	96,403	107,739	84,469	12,869
Hayti.....	—	—	3,815	1,420
Holland.....	326,382	292,459	807,386	794,794
Italy.....	555,965	481,905	507,199	6,123,240
Japan.....	130,996	146,768	114,962	218,164
Mexico.....	206,554	156,928	16,306	58,510
Norway.....	33,567	24,101	856,890	457,222
Panama.....	—	—	100,517	127,173
Peru.....	—	190,459	12,506	11,288
Porto Rico.....	—	—	251,601	281,826
Portugal.....	29,069	63,310	6,688	32,272
Portuguese Africa.....	—	—	48,603	46,362
Russia in Europe.....	26,104	—	121,673	1,937,723
Santo Domingo.....	524,694	1,345,908	2,791	10,018
Siam.....	—	—	4,026	20,977
Spain.....	147,929	116,076	46,647	617,973
Sweden.....	155,861	71,560	111,053	53,440
Switzerland.....	173,926	128,627	9,740	3,854
Turkey.....	128,802	2,316	1,757	—
U. S. of Colombia.....	96,989	60,693	23,785	30,661
Uruguay.....	6,152	189,228	19,338	33,101
Venezuela.....	45,566	66,829	54,053	90,916
Other countries.....	107,270	7,658	41,003	36,922
<b>Total foreign countries.....</b>	<b>7,638,338</b>	<b>8,391,619</b>	<b>8,580,518</b>	<b>27,720,507</b>
<b>Grand total.....</b>	<b>16,795,453</b>	<b>18,165,904</b>	<b>73,131,830</b>	<b>195,510,383</b>

## GRAIN STATISTICS.

A description of the arrangements for the storage, inspection, grading and shipment of Canadian grain has been given in previous issues of the Year Book (see pp. 454-457 of the edition of 1914). Tables 32 to 36 give the principal grain statistics for a series of years. For the year 1916-17 the total storage capacity of the 3,300 grain elevators in Canada was 193,844,000 bushels, these figures representing an increase from a total of 523 elevators and warehouses with a capacity of 18,329,352 bushels in 1900-01. Under The Canada Grain Act, 1912, the Dominion Government has power itself to erect and operate terminal grain elevators. Five such elevators are already in operation, and are situated respectively at Port Arthur (Ont.), Saskatoon (Sask.), Moosejaw (Sask.), Calgary (Alberta) and Vancouver (B.C.).

Table 32 shows for the crop years 1901 to 1917 the number of railway stations at which elevators are placed, the number of elevators and warehouses and their total storage capacity, the figures being given by provinces for the country elevators of the West, and by description of elevators for the rest of the country. Tables 33 and 34 give statistics of the inspection of grain for the years 1914, 1915 and 1916, and Tables 35 and 36 of the shipment of grain by vessel and rail for 1915 and 1916.

32.—Number and Storage Capacity of Canadian Grain Elevators in the crop years 1901-1917.

## COUNTRY ELEVATORS IN MANITOBA.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bushels.		No.	No.	No.	Bushels.
1901...	167	333	76	10,323,272	1909...	300	678	13	20,558,500
1902...	180	427	69	12,255,000	1910...	312	696	11	21,624,500
1903...	216	558	59	16,121,400	1911...	329	707	12	21,813,800
1904...	234	651	46	19,297,000	1912...	336	705	10	22,410,500
1905...	247	669	33	19,557,600	1913...	338	698	10	22,253,150
1906...	271	699	33	20,656,100	1914...	346	689	6	21,690,000
1907...	275	683	32	20,502,300	1915...	348	678	8	22,015,500
1908...	282	685	29	21,015,000	1916...	348	682	6	22,115,000
					1917...	352	672	-	21,250,000

## COUNTRY ELEVATORS IN NORTHWEST TERRITORIES.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bushels.		No.	No.	No.	Bushels.
1901...	50	88	21	2,433,000	1904...	86	261	18	7,917,000
1902...	60	111	18	3,194,000	1905...	109	298	13	8,934,000
1903...	66	176	23	5,105,000					

## COUNTRY ELEVATORS IN SASKATCHEWAN.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bushels.		No.	No.	No.	Bushels.
1906...	113	307	15	8,951,000	1912...	410	1,007	5	23,314,000
1907...	161	452	10	12,989,500	1913...	513	1,246	6	36,503,000
1908...	176	508	8	14,066,500	1914...	647	1,465	5	42,995,000
1909...	254	615	14	17,924,500	1915...	653	1,619	5	48,074,500
1910...	330	835	9	24,314,500	1916...	710	1,782	1	52,943,000
1911...	374	904	5	26,465,000	1917...	732	1,945	-	55,625,000

## COUNTRY ELEVATORS IN ALBERTA.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bushels.		No.	No.	No.	Bushels.
1906...	27	43	2	1,715,500	1912...	142	279	14	9,863,000
1907...	49	71	10	2,785,500	1913...	168	321	19	11,565,500
1908...	59	109	6	3,818,900	1914...	195	397	11	14,793,000
1909...	72	120	14	4,386,400	1915...	219	449	14	16,089,000
1910...	121	229	17	8,080,100	1916...	249	525	11	18,007,000
1911...	130	249	13	8,764,500	1917...	285	670	-	23,106,000

## TRADE AND COMMERCE.

## 32.—Number and Storage Capacity of Canadian Grain Elevators in the crop years 1901-1917—con.

## COUNTRY ELEVATORS IN BRITISH COLUMBIA.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bushels.		No.	No.	No.	Bushels.
1907...	2	3	—	320,000	1912...	7	6	2	487,000
1908...	4	3	2	276,000	1913...	6	7	2	562,000
1909...	3	3	—	168,000	1914...	6	7	2	562,000
1910...	6	6	1	441,000	1915...	5	7	1	440,000
1911...	7	6	2	444,000	1916...	5	6	1	459,000
					1917...	6	9	—	527,000

## TOTALS OF COUNTRY ELEVATORS.

1901...	217	421	97	12,759,352	1909...	629	1,416	41	43,037,400
1902...	240	538	87	15,449,000	1910...	769	1,766	38	54,460,400
1903...	282	734	82	21,226,400	1911...	840	1,866	32	57,487,300
1904...	320	912	64	27,214,000	1912...	915	1,997	31	62,074,500
1905...	356	967	46	28,491,630	1913...	1,025	2,272	37	70,883,650
1906...	411	1,049	50	31,323,200	1914...	1,194	2,552	24	80,040,000
1907...	487	1,212	52	36,597,200	1915...	1,225	2,752	28	86,649,000
1908...	521	1,305	36	39,777,000	1916...	1,312	2,995	19	94,322,000
					1917...	1,375	3,296	—	103,508,000

## INTERIOR TERMINAL ELEVATORS.

1913-14	1	1	—	1,000,000	1915-16	(1)	4	—	10,500,000
1914-15	3	3	—	8,000,000	1916-17	(1)	4	—	10,500,000

## INTERIOR HOSPITAL ELEVATORS.

1913-14	(3)	5	—	680,000	1915-16	(3)	7	—	825,000
1914-15	(3)	6	—	805,000	1916-17	(3)	6	—	805,000

## BRITISH COLUMBIA TERMINAL AND PUBLIC ELEVATORS.

1915-16	(1)	2	—	1,266,000	1916-17	(1)	2	—	1,266,000
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## ONTARIO TERMINAL ELEVATORS.

1901...	2	5	—	5,570,000	1909...	3	10	—	18,852,700
1902...	3	6	—	7,100,000	1910...	3	13	—	21,740,700
1903...	3	6	—	8,580,000	1911...	4	15	—	25,700,400
1904...	3	7	—	13,422,000	1912...	4	15	—	25,700,400
1905...	3	10	—	17,912,000	1913...	4	20	—	29,380,000
1906...	3	9	—	18,580,000	1914...	4	23	—	41,455,000
1907...	3	8	—	18,075,000	1915...	4	25	—	42,180,000
1908...	3	10	—	17,058,700	1916...	4	25	—	43,085,000
					1917...	4	26	—	45,325,000

## ONTARIO MILLING ELEVATORS.

1906...	1	1	—	550,000	1912...	2	3	—	1,700,000
1907...	1	1	—	550,000	1913...	3	3	—	1,700,000
1908...	2	3	—	1,700,000	1914...	2	3	—	1,700,000
1909...	1	2	—	1,300,000	1915...	2	3	—	1,700,000
1910...	2	3	—	1,700,000	1916...	2	3	—	1,700,000
1911...	2	3	—	1,700,000	1917...	2	3	—	1,700,000

<sup>1</sup>Including Hospital Elevators.

## GRAIN STATISTICS.

## 32.—Number and Storage Capacity of Canadian Grain Elevators in the crop years 1901-1917—concluded.

## ONTARIO COUNTRY ELEVATORS.

Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.	Year.	Sta- tions.	Ele- vators.	Ware- houses.	Capacity.
	No.	No.	No.	Bush.		No.	No.	No.	Bush.
1910...	—	1	—	40,000	1914...	—	1	—	40,000
1911...	—	1	—	40,000	1915...	—	1	—	40,000
1913...	—	1	—	40,000	1916...	—	1	—	40,000
					1917...	—	1	—	40,000

## PUBLIC ELEVATORS.

1909...	14	18	—	14,826,000	1913...	17	23	—	25,220,900
1910...	14	20	—	16,365,000	1914...	16	22	—	29,850,000
1911...	17	24	—	20,535,000	1915...	15	22	—	29,250,000
1912...	16	21	—	19,135,000	1916...	15	22	—	29,250,000
					1917...	16	22	—	30,700,000

## GRAND TOTAL OF CANADIAN ELEVATORS.

1901...	219	426	97	18,329,352	1909...	647	1,446	41	78,016,100
1902...	243	544	87	22,549,000	1910...	788	1,802	38	94,266,100
1903...	285	740	82	29,806,400	1911...	863	1,909	32	105,462,700
1904...	323	919	64	40,636,000	1912...	937	2,037	31	108,649,900
1905...	359	977	46	46,403,630	1913...	1,048	2,319	37	127,224,550
1906...	415	1,059	50	50,453,200	1914...	1,217	2,607	24	154,765,000
1907...	491	1,221	52	55,222,200	1915...	1,247	2,813	28	168,624,000
1908...	526	1,318	36	58,535,700	1916...	1,334	3,059	19	180,988,000
					1917...	1,400	3,360	—	193,844,000

NOTE.—The present average capacity of railway cars for the carriage of grain is for Wheat 1,150, Oats 1,950, Barley 1,300, Flax 1,100 and Rye 1,000 bushels for the crop of 1916.

<sup>1</sup>Including Public Elevators in the Eastern Inspection Division.

## 33.—Quantities of Grain inspected during the fiscal years 1914-1916.

Grades of Grain.	1914.		1915.		1916.	
	Eastern Division.	Western Division.	Eastern Division.	Western Division.	Eastern Division.	Western Division.
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat, spring—						
Manitoba No. 1	—	16,875	—	1,125	—	1,200
HardW. Fife	—	835,875	—	23,625	—	2,500,575
Northern No. 1	—	71,569,125	11,000	18,171,000	—	115,253,475
" No. 2	—	43,480,125	7,347	36,826,875	—	46,807,650
" No. 3	—	16,076,250	1,436	25,939,125	—	34,307,025
Rejected Smutty	—	7,283,250	—	3,114,000	—	3,166,800
" No. 1	—	18,000	—	1,215,000	—	6,215,550
" No. 2	—	3,928,500			—	
No grade.....	—	4,950,000	—	4,209,750	—	20,937,450
Comdemned.....	—	263,250	—	67,500	—	38,925
Commercial						
grades,						
No. 4.....	—	3,416,625	—	13,583,250	—	15,143,100
Commercial						
grades,						
No. 5.....	—	970,875	—	3,667,500	—	4,721,475
No. 6.....	—	660,375	—	738,000	—	1,298,175



## TRADE AND COMMERCE.

33.—Quantities of Grain inspected during the fiscal years 1914-1916—con.

Grades of Grain.	1914.		1915.		1916.	
	Eastern Division.	Western Division.	Eastern Division.	Western Division.	Eastern Division.	Western Division.
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat, spring—con.						
Commercial grades,						
No. 1 White....	—	—	—	—	245,607	—
No. 2 White....	—	—	—	—	59,384	—
No. 3 White....	—	—	—	—	38,396	—
No Grade.....	—	—	—	—	2,887	—
Rejected .....	—	—	—	—	8,681	—
Cleanings.....	—	97,875	—	—	—	—
Feed.....	—	132,750	—	102,375	—	189,000
Other grades....	—	55,125	2,350	14,625	7,129	59,475
<b>Total Spring Wheat....</b>	—	153,754,875	22,133	107,673,750	362,084	250,639,875
Wheat, Winter—						
U.S. Red Winter,						
No. 1	—	—	387,400	—	—	—
Red Winter No. 2	—	—	1,282,200	—	24,000	—
U.S. Hard Winter						
No. 1	128,000	—	950,100	—	16,000	—
U.S. Durum No. 1	—	—	—	—	448,000	—
U.S. Macaroni						
No. 1	—	—	—	—	645,500	—
White Winter,						
No. 1	—	—	—	—	2,000	—
No. 2	39,342	—	64,696	2,250	97,940	—
No. 3	—	—	—	—	9,719	—
Rejected .....	—	—	—	—	81,646	—
No Grade.....	—	—	—	—	14,991	—
Mixed Winter						
No. 2	44,232	2,250	42,796	2,250	25,376	1,125
No Grade.....	—	—	—	—	11,716	—
Rejected .....	—	—	—	—	19,815	—
Alberta Red						
Winter No. 1	—	51,750	1,000	84,375	—	11,325
Alberta Red						
Winter No. 2	7,607	625,500	18,524	99,000	—	66,825
Alberta Red						
Winter No. 3	—	382,500	1,930	48,375	—	375,600
Commercial grades,						
White No. 1	—	—	24,825	—	—	—
Commercial grades No. 4	—	87,750	—	3,375	—	—
Commercial grades No. 5	—	38,250	—	—	—	—
Other grades....	55,377	52,875	11,194	3,375	30,236	182,250
<b>Total Winter Wheat....</b>	274,558	1,240,875	2,784,665	243,000	1,426,939	637,125
<b>Total Spring and Winter Wheat...</b>	274,558	154,995,750	2,806,798	107,916,750	1,789,023	251,277,000
Indian Corn, Canadian.....	47,691	—	13,550	—	14,181	—
Indian Corn, No. 2 American.....	7,500	—	5,299	—	3,000	—
Indian Corn, No. 3 American.....	23,000	—	67,809	—	77,087	—
Indian Corn, American, other.....	15,929	—	41,348	—	36,305	—
<b>Total Corn....</b>	94,120	—	128,006	—	130,573	—

## GRAIN STATISTICS.

33.—Quantities of Grain inspected during the fiscal years 1914-1916—concluded

Grades of Grain.	1914.		1915.		1916.	
	Eastern Division.	Western Division.	Eastern Division.	Western Division.	Eastern Division.	Western Division.
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Oats, Extra No. 1.	—	—	—	1,900	—	—
“ No. 1.	22,790	481,650	—	146,300	12,214	380,550
“ “ 2.	254,581	39,214,500	849,358	11,099,800	462,770	29,583,500
“ “ 3.	199,656	14,521,650	1,175,288	6,891,300	1,530,546	12,746,500
“ “ 4.	—	—	153,450	—	527,704	—
“ U.S. No. 2 white clipped	—	—	145,300	—	—	—
“ U.S. No. 2.	—	—	102,853	—	—	—
“ Feed extra	—	—	—	—	—	—
“ No. 1.	1,900	5,159,700	—	3,971,000	—	4,530,450
“ Feed, No. 1.	—	2,460,900	—	4,504,900	—	2,555,450
“ Feed, No. 2.	—	5,385,900	—	3,401,000	—	6,459,300
“ Rejected.	134,677	1,226,550	123,321	1,294,200	364,765	10,095,250
“ No grade.	63,357	3,001,050	197,097	4,130,000	144,213	1,416,400
“ Condemned.	—	109,200	—	32,300	—	9,650
“ Other grades	2,478	1,474,200	2,750	294,500	58,300	871,950
<b>Total Oats.</b>	<b>679,438</b>	<b>73,035,300</b>	<b>2,749,417</b>	<b>35,837,800</b>	<b>3,100,512</b>	<b>68,649,000</b>
Buckwheat, No. 1.	—	—	—	—	1,861	—
“ No. 2.	133,959	—	311,387	—	415,172	—
“ No. 3.	—	—	3,629	—	5,880	—
“ No grade	521	—	2,511	—	9,813	—
“ Rejected	5,129	—	17,565	—	34,529	—
<b>Total.</b>	<b>139,609</b>	<b>—</b>	<b>336,092</b>	<b>—</b>	<b>467,255</b>	<b>—</b>
Barley, No. 1.	—	—	832	—	—	—
“ No. 2.	—	—	20,720	—	1,250	—
“ No. 3, extra	17,250	889,200	123,528	135,200	8,750	220,500
“ No. 3.	10,384	7,676,500	102,110	1,614,600	150,617	4,291,150
“ No. 4.	—	4,659,200	800	1,851,200	95,642	2,432,250
“ Feed.	—	417,200	—	410,800	—	301,850
“ Rejected.	22,100	1,921,400	6,577	319,800	87,996	514,350
“ No grade.	—	280,800	800	620,100	8,332	1,812,650
“ Other.	85,375	70,200	—	1,300	—	1,350
<b>Total.</b>	<b>135,109</b>	<b>15,944,500</b>	<b>253,368</b>	<b>4,953,000</b>	<b>352,587</b>	<b>9,574,100</b>
Rye, all grades.	179,737	72,000	240,797	123,000	553,939	116,000
Flaxseed, No. 1, N.W.	—	15,183,000	—	3,331,250	—	3,038,475
Flaxseed, No. 1 M.	—	2,081,100	—	539,150	—	171,375
“ No. 3, C.W.	—	661,500	—	68,675	—	51,650
“ No grade	—	369,600	—	32,800	—	16,750
“ Rejected.	—	113,400	—	28,700	—	25,350
“ Condemned.	—	24,150	—	1,025	—	—
<b>Total.</b>	<b>—</b>	<b>18,422,750</b>	<b>—</b>	<b>4,001,600</b>	<b>—</b>	<b>3,303,600</b>
Peas, all grades.	4,567	—	12,300	—	15,344	—

¹No. 2. C. W.

## TRADE AND COMMERCE.

34.—Quantities of Grain inspected during the fiscal years ended March 31, 1914,  
1915 and 1916.

Grain.	Eastern Division.					Western Division.	Grand Total.
	Kings-ton.	Peter-boro.	Toronto.	Mont-real.	Total.		
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat... 1914	1,000	40,968	104,590	128,000	274,558	154,995,750	155,270,308
1915	—	38,402	139,702	2,628,670	2,806,774	107,916,750	110,723,524
1916	—	—	376,777	1,412,246	1,789,023	251,277,000	253,066,023
Corn... 1914	—	—	21,130	72,990	94,120	—	94,120
1915	—	—	16,405	111,501	127,906	—	127,906
1916	—	—	18,552	112,321	130,573	—	130,573
Oats.... 1914	—	62,200	543,657	73,582	679,439	73,035,300	73,714,739
1915	—	109,388	933,680	1,706,349	2,749,417	35,837,800	38,587,217
1916	—	—	1,376,546	1,723,966	3,100,512	68,649,000	71,749,512
Buck-wheat.. 1914	—	62,771	72,730	4,108	139,609	—	139,609
1915	—	23,760	284,324	28,008	336,092	—	336,092
1916	—	—	339,747	127,508	467,255	—	467,255
Barley... 1914	—	—	125,812	9,297	135,109	15,944,500	16,079,609
1915	—	1,100	230,122	24,146	255,368	4,953,000	5,208,368
1916	—	—	322,367	30,220	352,587	9,574,100	9,926,687
Rye.... 1914	—	11,857	4,980	162,900	179,737	72,000	251,737
1915	—	4,854	144,765	97,178	246,797	123,000	369,797
1916	—	—	374,782	179,157	553,939	116,000	669,939
Flaxseed.. 1914	—	—	—	—	—	18,432,750	18,432,750
1915	—	—	—	—	—	4,001,600	4,001,600
1916	—	—	—	—	—	3,303,600	3,303,600
Peas.... 1914	—	—	1,667	2,900	4,567	—	4,567
1915	—	—	12,300	—	12,300	—	12,300
1916	—	—	14,944	400	15,344	—	15,344
Screen-ings... 1916	—	—	—	—	—	281,000	281,000
<b>Total... 1914</b>	<b>1,000</b>	<b>177,796</b>	<b>874,566</b>	<b>453,777</b>	<b>1,507,139</b>	<b>262,667,300<sup>1</sup></b>	<b>264,174,439<sup>1</sup></b>
“ 1915	—	177,504	1,761,298	4,674,160 <sup>2</sup>	6,612,000	153,038,150 <sup>3</sup>	159,651,112
“ 1916	—	—	2,823,415	3,585,818	6,409,233	333,200,700	339,609,933

<sup>1</sup>Includes 186,000 bushels of screenings and 1,000 bushels of speltz.<sup>2</sup> “ 78,308 “ Argentina corn.<sup>3</sup> “ 206,000 “ screenings.

## GRAIN STATISTICS.

## 35.—Shipments of Grain by vessels from Fort William and Port Arthur for the navigation seasons 1915 and 1916.

Vessels.	1915.			1916.		
	To Canadian ports.	To American ports.	Total shipments.	To Canadian ports.	To American ports.	Total shipments.
Canadian vessels—	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat.....	60,594,318	7,764,081	68,358,399	74,870,289	106,815,702	181,685,991
Oats.....	22,608,366	291,173	22,899,539	39,984,439	17,836,800	57,821,239
Barley.....	2,551,251	354,997	2,906,248	5,671,877	3,215,405	8,887,282
Flaxseed...	831,652	136,178	967,830	1,018,524	4,556,463	5,574,957
Screenings.	65,862	266,280	332,142	19,633	1,574,523	1,594,156
Mixed grains...	128,845	—	128,845	250,711	71,644	322,355
Foreign vessels—						
Wheat.....	176,703	98,857,699	99,034,402	—	—	—
Oats.....	527,951	3,797,160	4,325,111	—	—	—
Barley.....	232,686	1,832,629	2,065,315	—	—	—
Flaxseed...	—	1,436,548	1,436,548	—	—	—
Screenings.	—	1,345,182	1,345,182	—	—	—
<b>Total.....</b>	<b>87,717,634</b>	<b>116,081,927</b>	<b>203,799,561</b>	<b>121,815,473</b>	<b>134,070,537</b>	<b>255,886,010</b>

NOTE.—For 1916 the Shipments of Grain were not separately distinguished as between Canadian and Foreign vessels.

## 36.—Shipments of Grain by vessels and all rail route from Fort William and Port Arthur for the crop years ended August 31, 1915 and 1916.

Grain.	1914-15.			1915-16.		
	Vessels.	Rail.	Total.	Vessels.	Rail.	Total.
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat—						
No. 1 Hard	30,611	3,134	33,745	2,056,976	138,031	2,195,007
No. 1 Northern	14,782,266	1,007,808	15,790,074	137,919,099	7,658,147	145,577,246
No. 2 Northern	25,574,825	2,345,844	27,920,669	45,366,931	3,877,622	49,244,553
No. 3 Northern	18,517,590	1,192,191	19,709,781	35,346,063	4,299,006	39,645,069
Sundry grades...	13,287,963	2,077,170	15,465,133	36,216,532	6,421,160	42,637,692
Screenings.	1,039,047	277,196	1,316,243	—	—	—
<b>Total wheat..</b>	<b>73,332,302</b>	<b>6,903,343</b>	<b>80,235,645</b>	<b>256,965,541</b>	<b>22,293,966</b>	<b>279,259,507</b>
Oats.....	15,897,695	1,224,195	17,121,890	60,255,979	14,975,499	75,231,478
Barley.....	2,524,081	125,481	2,649,562	9,039,159	886,471	9,925,630
Flaxseed....	4,305,528	107,897	4,413,425	4,573,581	516,350	5,089,937
Rye.....	1,040	2,540	3,580	—	5,396	5,396
Rejected mixed grain	88,960	21,674	110,634	—	—	—
<b>Total grain..</b>	<b>96,149,606</b>	<b>8,385,130</b>	<b>104,534,736</b>	<b>330,774,260</b>	<b>38,777,688</b>	<b>369,551,948</b>



## TRADE AND COMMERCE.

## BOUNTIES.

The only bounties now being paid are for crude petroleum. Bounties on lead have temporarily ceased owing to the fact that the price in London exceeds the amount below which bounties are payable under the Lead Bounties Act. In 1916 a sum of \$59.88 on 99,797 lb. was paid, which brought the total paid in lead bounties from 1899 to 1916 to \$1,979,164 for 1,187,083,350 lb. as in Table 37. For crude petroleum the amount paid in 1916 was \$109,177 for 7,278,452 gallons, the total from 1905 to 1916 being \$2,537,012 on 169,134,123 gallons, as shown in Table 38. The total amount of bounties paid from 1896 to 1916 is \$21,609,965. Of this amount \$16,785,827 was for iron and steel, \$1,979,164 for lead, \$2,537,012 for crude petroleum and \$367,962 for Manila fibre. The Year Book of 1915, pages 459 and 460, gave a description of the bounties that have been payable since 1883, as well as Tables showing for each commodity the quantities on which bounties were annually paid, and the amounts of such bounties, for the years 1896 to 1915 inclusive.

37.—Bounties paid in Canada on Lead, 1899-1916.

Fiscal Year.	Quantity.	Bounty.	Fiscal Year.	Quantity.	Bounty.
	lb.	\$		lb.	\$
1899.....	449,636,000	76,665	1909.....	42,533,287	307,434
1900.....	177,990,000	43,335	1910.....	45,467,545	340,542
1901.....	245,792,000	30,000	1911.....	33,351,909	248,535
1902.....	—	—	1912.....	27,823,221	179,288
1903.....	2,576,060	43,110	1913.....	25,585,569	68,065
1904.....	26,748,104	195,627	1914.....	7,197,038	8,179
1905.....	56,489,523	330,645	1915.....	3,237,897	3,217
1906.....	28,708,428	90,196	1916.....	99,797	60
1907.....	21,479	1,995			
1908.....	15,425,553	51,001	Total.....	1,187,083,350	1,979,164

38.—Bounties paid in Canada on Crude Petroleum, 1905-1916.

Fiscal Year.	Quantity.	Bounty.	Fiscal Year.	Quantity.	Bounty.
	gal.	\$		gal.	\$
1905.....	23,336,478	350,047	1912.....	9,462,880	141,936
1906.....	19,410,480	291,157	1913.....	8,616,767	129,252
1907.....	17,779,205	266,552	1914.....	7,884,211	117,543
1908.....	26,081,139	391,217	1915.....	7,685,127	115,277
1909.....	17,379,871	260,698	1916.....	7,278,452	109,177
1910.....	13,572,587	203,589			
1911.....	10,706,418	160,596	Total.....	169,134,123	2,537,012

## PATENTS.

Applications for patents in Canada from inventors in other countries were first received in 1872. In that year the total number of applications for patents made to the Canadian Patent Office, Department of Agriculture, was 752, and the total fees amounted to \$18,652. The business of the Office has continued gradually to expand, and the number of applications and total fees have increased each year without a break since the beginning of the present century until the fiscal year ended March 31, 1913, when 8,681 applications were received, and the total fees amounted to \$218,125. The number of patents granted in the fiscal year 1915-16 was 6,812, as compared with 6,867 in 1914-15. Of the total number of patents granted in the fiscal years 1915-16, 4,972 were issued to inventors or assignees resident in the United States, this number being 73 p.c. of the total. Patents to Canadian inventors numbered 1,125, the other principal countries in order of the number of patents granted being Great Britain 360, Australia 76, France 55, and Sweden 44. Table 29 shows the distribution of the Canadian patentees by province of residence for the years 1908 to 1916.

29.—Number of Canadian Patentees by Province of Residence for the fiscal years 1908-1916.

Provinces.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	2	3	2	—	—	4	2	2	3
Nova Scotia.....	27	24	29	31	30	20	39	33	21
New Brunswick.....	25	18	30	23	17	25	30	20	17
Quebec.....	178	205	267	271	233	277	278	278	237
Ontario.....	424	467	610	610	531	584	607	586	540
Manitoba.....	61	71	88	102	72	105	115	97	89
Saskatchewan.....	15	32	40	47	47	58	59	66	65
Alberta.....	25	28	39	54	56	61	46	71	60
British Columbia...	52	51	90	108	97	122	157	126	92
Territories and Yukon	6	4	3	—	—	—	1	2	1
<b>Totals:</b>	<b>815</b>	<b>903</b>	<b>1,198</b>	<b>1,246</b>	<b>1,083</b>	<b>1,256</b>	<b>1,334</b>	<b>1,281</b>	<b>1,125</b>

## TRANSPORTATION AND COMMUNICATIONS.

It will be seen from the table that the more populous provinces of Ontario and Quebec obtained the largest absolute number of patents; but a calculation of the number of patentees in relation to population shows that for the fiscal year 1916 the greatest relative inventiveness was displayed in British Columbia. Thus in this province, in 1916, one patent was granted to every 3,943 persons, the other provinces as regards the number of persons to each patent granted being placed in order as follows: Ontario 4,666, Manitoba 5,109, Alberta 6,215, Saskatchewan 7,577, Yukon 8,000, Quebec 8,441, New Brunswick 20,695, Nova Scotia 21,992 and Prince Edward Island 31,240.

## COPYRIGHT, TRADE MARKS, ETC.

The report for the year ended March 31, 1916, of the Copyright and Trade Marks Branch of the Department of Agriculture shows that the fees received for copyrights, trade marks, industrial designs and timber marks amounted to \$35,653 for the fiscal year 1915-16, as compared with \$39,600 in 1914-15. Registrations of copyright in 1915-16 numbered 1,477 against 1,675 in 1914-15, of trade marks 1,019 against 1,106, of industrial designs 215 against 224 and of timber marks 27 against 24.

## VIII.—TRANSPORTATION AND COMMUNICATIONS.

Statistics of transportation and communications comprise those of steam and electric railways, express companies, shipping, canals, telegraphs, telephones and the Post Office.<sup>1</sup>

## RAILWAYS.

**Steam Railways.**—The increase in the railway mileage of Canada for the year ended June 30, 1916, was 1,852, as compared with 4,788 in 1915, 1,491 in 1914 and 2,577 in 1913, the increases respectively over the mileage of the previous year. The total railway mileage in actual operation on June 30, 1916, was 37,434. The railway year runs from July 1 to June 30, and the railway statistics throughout this section are for the years ended June 30. About 3,150 miles of new line were under construction on June 30, the new roads and extensions being almost wholly in the western provinces. Table 1 records the steam railway mileage in Canada annually from 1835 to 1916, and Table 2 the steam railway mileage of Canada by provinces for each of the seven years 1910 to 1916.

**Capital Liability of Steam Railways.**—During the year ended June 30, 1916, the sum of \$17,314,886 was added to the capital liability of steam railways in operation in Canada, including stocks \$178,387 and funded debt \$17,136,544. These changes bring the total capitalization

<sup>1</sup>The statistics of railways, express companies, canals, telegraphs and telephones are taken from the Reports for the year ended June 30, 1916, of the Department of Railways and Canals, especially the Reports of the Comptroller of Statistics (Nos. 20, 20A, 20B, 20D, 20E, 20F, 1917). The shipping statistics are taken from the Report of the Department of Marine and the Trade and Navigation Returns. The postal statistics are from the Report of the Post Office Department.

## RAILWAYS.

of Canadian steam railways in operation to \$1,893,125,774 on June 30, 1916, as compared with \$1,875,810,888 in 1915 (Table 3). If the capitalization of railways under construction be added to that of the operating railways the total is increased to \$1,974,607,278, of which \$877,236,943 are stocks, \$176,284,882 are consolidated debenture stock, and \$921,085,449 are funded debt.

**Statistics of Individual Companies.**—Table 5 gives the mileage, capital, aid paid up, earnings and operating expenses of the steam railways of Canada for the year ended June 30, 1916. It shows that the aggregate earnings were \$261,888,654, an increase compared with 1915 of \$62,045,582, or 31 p.c. Operating expenses in 1916 amounted to \$180,542,259, an increase of \$32,811,160, or 22.2 p.c. The ratio of operating expenses to gross earnings was 68.9 p.c., as compared with 73.9 p.c. in 1915. The total aid paid up, as given in Table 5, amounting to \$159,410,343, includes \$116,297,938 paid by the Dominion Government, \$30,441,565 paid by the Provincial Governments and \$12,670,838 paid by municipalities.

**Passengers and Freight.**—Table 6, giving the statistics of steam railways from 1875 to 1916, shows that in 1916 the steam railways of Canada carried 49,027,671 passengers and 109,659,088 tons of freight, an increase of 2,705,636 passengers, or 5.8 p.c., and of 22,454,250 tons of freight, or 25.7 p.c., as compared with 1915. The volume of passenger and freight traffic in 1916 was the largest in the history of Canadian railways. The distribution of freight as between different classes of products is shown in Table 15. The proportions p.c. are for 1916 as follows: Agriculture, 24.72; animals, 3.56; mines, 34.52; forests, 15.10; manufactures, 15.38; merchandise, 4.22 and miscellaneous, 2.50.

**Government Aid to Railways.**—The railways of Canada have been built largely under different forms of Government aid. Tables 4 and 9 to 11 show its nature and extent. The principal forms of aid granted have consisted in land grants, cash subsidies, loans, the issue of debentures and the guarantee of bonds or interest. Aid has been granted both by the Dominion and Provincial Governments and also by municipalities. Table 4 shows the areas of the land granted as subsidies to steam railway companies by the Dominion and Provincial Governments, with the names of the companies in the case of the Dominion Government. The total area so granted up to June 30, 1916, extends to 55,740,249 acres.

**Government Railways and Subsidies.**—The Dominion Government has itself undertaken the construction of the eastern portion of the new National Transcontinental Railway from Moncton, N.B., to Winnipeg, Man., and the expenditure on this line up to March 31, 1916, was \$159,881,197 (Table 13). Also the Dominion Government owns and operates the Intercolonial Railway, which extends from ocean ports in Nova Scotia and New Brunswick to Montreal, and the Prince Edward Island Railway. From 1851 up to June 30, 1916, as shown analytically in Table 10, the total value of public aid granted to steam railways in Canada, exclusive of the capital of the two government railways (I.C.R. and P.E.I.R.), amounted to \$240,072,359. Of this sum \$184,719,628 represents aid granted by the Dominion Government, \$37,437,895 that



## TRANSPORTATION AND COMMUNICATIONS.

granted by the Provincial Governments, and \$17,914,836 that granted by municipalities. During 1916 the total cash subsidies paid to railways amounted to \$1,240,435, paid wholly by the Dominion Government.

**Aid to Railways by Dominion Government.**—Table 11 shows for each year from 1875 to 1916 the amount of aid to date given to steam railways by the Dominion Government. The total at June 30, 1916, of \$311,796,726 is made up of the capital of the two government-owned lines, amounting to \$127,077,098, and \$184,719,628, representing the aid granted by the Dominion Government to other railways. The latter includes in 1912 the sum of \$4,994,417 paid to the Grand Trunk Pacific Railway Co. under the Implement Clause of the agreement between the Government and the Company, increased in 1916 to \$6,263,716. This clause provides that the Government shall make up the difference between the amount realized by certain bonds and their par value. In each year since 1886 the aid granted to other railways includes the sum of \$10,189,521 paid by the Government to the Canadian Pacific Railway Company for land taken over by the Government from the Company's land subsidy. From 1885 to 1909 the amounts in the third column represent the accumulated annual payment by the Dominion to the Quebec Government of interest at 5 p.c. on a sum of \$2,394,000 and amounting to \$119,700 on account of the transfer of the Quebec, Montreal, Ottawa and Occidental Railway. The item of \$5,160,054 in 1909 includes the payment of the principal. From 1910, the amounts include the loan of \$10,000,000 made to the Grand Trunk Pacific Railway Company under federal legislation of 1909 (8-9 Edw. VII, c. 19).

1.—Record of Steam Railway Mileage, 1835-1916.

Year.	Number of miles in operation.	Year.	Number of miles in operation.	Year.	Number of miles in operation.	Year.	Number of miles in operation.
1835....	—	1856....	1,414	1877....	5,782	1898....	16,870
1836....	16	1857....	1,444	1878....	6,226	1899....	17,250
1837....	16	1858....	1,863	1879....	6,858	1900....	17,657
1838....	16	1859....	1,994	1880....	7,194	1901....	18,140
1839....	16	1860....	2,065	1881....	7,331	1902....	18,714
1840....	16	1861....	2,146	1882....	8,697	1903....	18,988
1841....	16	1862....	2,189	1883....	9,577	1904....	19,431
1842....	16	1863....	2,189	1884....	10,273	1905....	20,487
1843....	16	1864....	2,189	1885....	10,773	1906....	21,353
1844....	16	1865....	2,240	1886....	11,793	1907....	22,452
1845....	16	1866....	2,278	1887....	12,184	1908....	22,966
1846....	16	1867....	2,278	1888....	12,163	1909....	24,104
1847....	54	1868....	2,270	1889....	12,628	1910....	24,731
1848....	54	1869....	2,524	1890....	13,151	1911....	25,400
1849....	54	1870....	2,617	1891....	13,838	1912....	26,727
1850....	66	1871....	2,695	1892....	14,564	1913....	29,304
1851....	159	1872....	2,899	1893....	15,005	1914....	30,795
1852....	205	1873....	3,832	1894....	15,627	1915....	35,582
1853....	506	1874....	4,331	1895....	15,977	1916....	37,434
1854....	764	1875....	4,804	1896....	16,270		
1855....	877	1876....	5,218	1897....	16,550		

## RAILWAYS.

## 2.—Steam Railway Mileage by Provinces, 1910-1916.

Provinces:	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Ontario.....	8,230	8,322	8,546	9,000	9,255	10,702	11,320
Quebec.....	3,795	3,882	3,882	3,986	4,043	4,677	4,733
Manitoba.....	3,221	3,466	3,520	3,993	4,076	4,498	4,309
Saskatchewan.....	2,932	3,121	3,754	4,651	5,089	5,327	5,378
Alberta.....	1,488	1,494	1,897	2,212	2,545	3,174	3,894
British Columbia..	1,832	1,842	1,855	1,951	1,978	3,100	3,604
New Brunswick....	1,522	1,548	1,545	1,545	1,839	1,962	1,957
Nova Scotia.....	1,351	1,354	1,357	1,360	1,365	1,367	1,436
P. Edward Island..	269	269	269	279	279	275	275
Yukon.....	91	102	102	102	102	102	102
In United States...	—	—	—	225	224	398	426
Canada.....	24,731	25,406	26,727	29,304	30,795	35,582	37,434

NOTE.—The mileage shown in the United States relates entirely to lines which cross American territory in passing from one point in Canada to another; such lines, although not heretofore included in Canadian mileage, are operated wholly for the purposes of Canadian traffic. There is a large additional mileage in the United States, which is owned and operated by Canadian Railways, but of which no account is taken in these statistics.

## 3.—Capital Liability of Steam Railways, 1876-1916.

Year	Stocks.	Funded Debt.	Total.	Year	Stocks.	Funded Debt.	Total.
	\$	\$	\$		\$	\$	\$
1876	180,955,657	76,079,531	257,035,188	1897	367,611,048	348,834,086	716,445,134
1877	182,578,991	79,676,382	262,255,373	1898	378,151,790	354,946,865	733,098,655
1878	191,321,767	83,710,938	275,042,705	1899	391,300,360	362,053,495	753,353,855
1879	192,674,553	81,151,628	273,826,181	1900	410,326,095	373,716,704	784,042,799
1880	189,956,177	80,661,316	270,617,493	1901	424,414,314	391,696,523	816,110,837
1881	199,527,981	84,891,313	284,419,294	1902	460,401,863	404,806,847	865,208,710
1882	216,468,465	92,487,932	306,956,397	1903	483,770,312	424,100,762	907,871,074
1883	269,092,615	102,134,295	371,226,910	1904	492,752,530	449,114,035	941,866,565
1884	285,077,822	109,310,963	394,388,785	1905	526,353,951	465,543,967	991,897,918
1885	312,183,162	141,370,963	453,553,125	1906	561,655,395	504,226,231	1,065,881,629
1886	317,141,948	169,359,306	486,501,254	1907	588,563,591	583,369,217	1,171,932,808
1887	324,128,738	194,801,553	518,930,291	1908	607,891,349	631,869,664	1,239,761,013
1888	327,493,882	228,617,728	556,111,610	1909	647,534,647	660,946,769	1,308,481,416
1889	332,559,672	261,375,226	593,934,898	1910	687,557,387	722,740,300	1,410,297,687
1890	338,177,386	266,885,707	605,063,093	1911	749,207,687	779,481,514	1,528,689,201
1891	339,769,786	292,291,654	632,061,440	1912	770,459,351	818,478,175	1,588,937,526
1892	344,400,282	305,120,200	649,520,482	1913	755,316,516	813,256,952	1,568,573,468
1893	371,877,287	307,225,888	679,103,175	1914	853,110,653	782,402,638	1,635,513,291
1894	361,760,508	327,003,803	688,764,311	1915	847,801,101	851,724,905	1,699,526,006
1895	361,449,594	330,785,546	692,235,140	1916	847,979,443	868,861,449	1,716,840,892
1896	361,075,340	336,137,601	697,212,941				

<sup>1</sup>Including consolidated debenture stock of the Canadian Pacific Railway, \$163,257,224 in 1913, \$173,307,470 in 1914, \$176,284,832 in 1915 and 176,284,832 in 1916.

## TRANSPORTATION AND COMMUNICATIONS.

## 4.—Areas of Land Subsidies granted to Steam Railways by the Dominion and Provincial Governments up to June 30, 1916.

By the Dominion Government to—	Acres.
Alberta Railway and Irrigation Co. (formerly Northwest Coal and Navigation Co.).....	1,114,368
Calgary and Edmonton Railway Co.....	1,888,448
Canadian Northern Railway Co. (from points on C. P. R. to Hudson Bay).....	2,624,128
Canadian Northern Railway Co. (formerly Lake Manitoba Ry. and Canal Co.).....	798,400
Canadian Pacific Railway Co. (main line).....	18,206,986
C. P. R. Pipestone extension, Souris Branch.....	200,320
C. P. R. Souris Branch.....	1,408,704
Great Northwest Central Railway Co. (formerly Northwest Central Railway Co.).....	320,000
Manitoba and Northwestern Railway Co.....	1,501,376
Manitoba Southwestern Colonization Railway Co.....	1,396,800
C. N. Railway (formerly Manitoba and Southeastern Railway Co.)....	680,320
Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.....	1,625,344
Saskatchewan and Western Railway Co.....	98,880
<b>Total by Dominion Government.....</b>	<b>31,864,074</b>
By Provincial Governments:	
Quebec.....	13,324,950
British Columbia.....	8,119,221
New Brunswick.....	1,647,772
Nova Scotia.....	160,000
Ontario.....	624,232
<b>Total by Provincial Governments.....</b>	<b>23,876,175</b>
<b>Total area of Dominion and Provincial land grants to steam railways.</b>	<b>55,740,249</b>

## 5.—Mileage, Capital, Earnings and Operating Expenses of Steam Railways, 1916.

Name of Railway.	Miles operated.	Capital.	Aid paid up.	Earnings.	Operating expenses.
	No.	\$	\$	\$	\$
Alberta Central <sup>1</sup> .....	—	—	404,480	—	—
Algoma Eastern.....	88.77	5,770,000	812,648	528,005	247,820
Alberta Southern (aband.).....	—	—	113,694	—	—
Algoma Central and Hudson Bay.....	347.71	21,542,000	2,248,324	739,271	574,829
Atlantic, Quebec, and Western.....	103.08	4,548,675	902,800	102,765	119,913

<sup>1</sup>Under construction.

## RAILWAYS.

## 5.—Mileage, Capital, Earnings and Operating Expenses of Steam Railways, 1916

—con.

Name of Railway.	Miles oper- ated.	Capital.	Aid paid up.	Earnings.	Operat- ing expenses.
	No.	\$	\$	\$	\$
Bedlington and Nelson....	12.04	1,000,000	—	—	—
British Yukon.....	101.12	4,438,879	—	270,104	104,133
Bruce Mines and Algoma..	—	—	105,338	—	—
Buctouche and Moncton...	32.00	310,000	196,100	34,664	31,527
Brandon, Saskatchewan and Hudson Bay.....	69.45	2,150,000	—	51,159	128,902
Canada and Gulf Terminal.	35.80	1,340,000	230,654	49,329	40,177
Canada Southern.....	380.54	37,630,000	521,559	11,422,273	6,415,172
Canadian Government Railways—					
Intercolonial.....	1,514.10	—	927,616 <sup>2</sup>	15,686,662	13,323,183
Prince Edward Island..	274.60	—	—	436,728	575,515
Canadian Northern System	9,647.23	427,928,765	38,550,965	35,476,275	25,244,186
Canadian Pacific, including leased lines.....	12,899.70	582,490,139	65,461,733 <sup>3</sup>	124,654,571	78,237,828
Cape Breton.....	31.00	1,000,000	306,000	15,100	21,971
Caraguet.....	84.78	1,750,000	499,649	81,218	75,494
Central Ry. of Canada <sup>1</sup> ...	—	—	30,145	—	—
Central Vermont.....	125.20	—	—	341,672	255,770
Colchester Coal & Ry. Co.	—	—	12,800	—	—
Crows Nest Southern.....	74.18	4,210,000	—	112,642	169,121
Cumberland Railway and Coal Co.....	32.00	—	213,500	87,454	76,257
Detroit River Tunnel.....	1.45	21,000,000	—	—	—
Dominion Atlantic.....	274.16	8,431,499	3,358,422	962,067	685,303
Eastern British Columbia.	14.00	420,000	—	31,338	32,559
Edmonton, Dunvegan and British Columbia.....	287.00	7,250,000	—	427,413	333,256
Essex Terminal.....	10.00	720,000	—	84,311	55,857
Elgin and Havelock.....	27.00	94,900	203,153 <sup>4</sup>	10,997	10,700
Esquimalt and Nanaimo...	199.20	7,332,000	1,520,560	529,913	358,802
Fredericton and Grand Lake.....	35.00	605,000	216,576	69,807	45,532
Grand Trunk Pacific.....	1,963.91	198,724,100	6,990,036 <sup>3</sup>	6,963,189	5,902,843
Grand Trunk.....	3,555.85	444,290,651	12,993,059	39,155,040	28,782,013
Hereford.....	52.18	1,600,000	254,786	97,063	106,443

<sup>1</sup>Under construction. <sup>2</sup>St. Mary's Bridge Co., \$30,000, Canada Eastern, \$374,840, Drummond County, \$438,936, Nova Scotia Steel and Coal Co.'s Ry., \$83,840. <sup>3</sup>Includes \$10,189,521 paid to the company for 6,793,014 acres of land relinquished. <sup>4</sup>Includes value of used iron rails. <sup>5</sup>Includes \$6,263,716 paid to the company under the "Implement Clause" by the Dominion Government.



## TRANSPORTATION AND COMMUNICATIONS.

5.—Mileage, Capital, Earnings and Operating Expenses of Steam Railways, 1916  
—con.

Name of Railway.	Miles oper- ated.	Capital.	Aid paid up.	Earnings.	Operat- ing expenses.
	No.	\$	\$	\$	\$
International Bridge Coy..	-	2,012,260	-	-	-
International of New Brunswick.....	111.30	-	1,006,080	116,227	119,431
Inverness Railway and Coal Co. (C.N.R.).....	69.91	-	-	-	-
Kent Northern.....	27.00	107,000	236,734 <sup>2</sup>	-	-
Kettle Valley.....	302.92	375,000	2,993,988	330,427	329,254
Kootenay Central <sup>1</sup> .....	-	-	1,065,856	-	-
Klondike Mines.....	31.81	2,466,250	197,184	-	-
Lake Erie and Northern <sup>1</sup> ..	-	-	320,191	-	-
Lake Erie & Detroit River	-	4,400,000	1,011,351	-	-
L'Assomption (road abandoned).....	-	-	11,200	-	-
Lake Champlain and St. Lawrence Junction.....	-	978,000	286,280	-	-
Lotbinière and Megantic..	30.00	50,000	222,994	36,074	29,561
Maganatawan River.....	1.91	-	13,552	-	-
Maine Central (Princeton).	5.10	173,900	-	18,363	14,590
Midland Railway of Manitoba.....	6.40	4,300,000	-	266,365	303,670
Maritime Coal and Ry. Co.	15.03	3,661,500	80,488	90,342	53,580
Massawippi Valley.....	35.40	800,000	10,376	224,520	208,399
Montreal and Atlantic.....	184.40	4,265,000	315,892	1,291,420	946,632
Montreal & Province Line	-	1,200,000	314,682	-	-
Montreal and Vermont Junction.....	-	1,000,000	-	-	-
Morrissey, Fernie and Michel.....	10.85	1,263,000	-	120,589	80,427
Manitoba Great Northern.	91.77	2,066,000	-	38,087	114,690
Minudie Coal and Ry. Co..	-	-	18,544	-	-
Napierville Junction.....	27.00	600,000	183,440	129,417	58,476
National Transcontinental.	2,002.00	-	-	5,798,516	5,369,062
Nelson and Fort Sheppard.	55.42	2,846,800	-	42,909	88,839
New Brunswick Coal and Ry. Co. ....	58.00	<sup>2</sup>	414,400	44,950	44,650
New Brunswick and Prince Edward Island.....	36.05	-	213,149	42,624	62,876
New Westminster Southern	15.18	600,000	-	35,203	28,458
North Shore, N.B.....	8.63	133,000	43,816	-	-
Northern New Brunswick and Seaboard <sup>1</sup> .....	19.80	595,500	108,160	-	-
Nosbonsing and Nipissing..	5.50	-	-	-	-
Ottawa and New York.....	56.90	2,600,000	382,384	250,237	282,820
Pere Marquette in Canada.	198.81	5,870,000	-	2,987,101	1,586,697

<sup>1</sup>Under construction. <sup>2</sup>Owned and operated by New Brunswick Government.  
<sup>3</sup>Includes value of used iron rails.

## RAILWAYS.

5.—Mileage, Capital, Earnings and Operating Expenses of Steam Railways, 1916  
—concluded.

Name of Railway.	Miles oper- ated.	Capital.	Aid paid up.	Earnings.	Operat- ing expenses.
	No.	\$	\$	\$	\$
Phillipsburg Ry. and Quarry Co.....	6.00	164,500	49,379	—	—
Pontiac and Renfrew.....	—	—	31,034	—	—
Quebec Bridge and Rail- way Co. <sup>1</sup> .....	—	—	915,171	—	—
Quebec Central.....	277.00	9,615,009	1,764,162	1,506,348	905,582
Quebec Oriental.....	100.00	2,104,100	1,803,084	138,689	120,308
Quebec Ry., Light and Power Co.....	30.82	—	402,946	87,476	67,124
Quebec, Montreal and Southern.....	192.18	7,060,000	1,491,762	383,654	471,140
Quebec and Saguenay <sup>1</sup> .....	—	—	248,801	—	—
Roberval and Saguenay.....	26.86	3,272,000	244,153	160,033	94,132
Red Mountain.....	0.51	112,000	—	14,500	27,300
Rutland and Noyan.....	3.29	200,000	—	14,956	12,062
Salisbury and Albert.....	45.00	150,000	554,391 <sup>2</sup>	42,077	32,984
Schomberg and Aurora.....	—	550,000	46,144	—	—
Stanstead, Shefford and Chamby.....	—	764,615	—	—	—
Southampton (N.B.) <sup>1</sup> .....	—	—	81,280	—	—
St. John & Quebec <sup>1</sup> .....	119.87	—	598,320	69,847	90,556
St. Clair Tunnel.....	1.23	3,200,000	375,000	—	—
St. Lawrence & Adirondack	46.12	2,145,073	219,882	743,192	424,332
St. Martins.....	30.00	189,000	229,213 <sup>3</sup>	21,506	20,588
Sydney and Louisburg (Dom. Coal Co.).....	70.27	<sup>2</sup>	169,808	821,386	631,272
Temiscouata.....	113.00	4,099,669	1,099,200	222,778	174,262
Timiskaming and Northern Ontario <sup>4</sup> .....	328.50	—	2,134,080	1,992,372	1,530,021
Thessalon & Northern (Ont.) <sup>1</sup> .....	—	—	6,112	—	—
Thousand Islands.....	6.33	118,000	39,840	38,001	26,698
Toronto, Hamilton and Buffalo.....	95.05	8,842,500	323,100	1,649,513	988,531
Vancouver, Victoria and Eastern.....	224.12	20,850,000	—	540,128	711,851
Victoria and Sydney, B.C.	15.79	403,000	—	31,935	27,275
Victoria Terminal Ry. and Ferry Co.....	0.99	500	—	2,518	1,775
Wabash Ry. Co. in Canada.	—	—	—	3,118,317	2,395,144
York and Carleton.....	10.50	105,000	58,143	4,980	3,835
<b>Total.....</b>	<b>37,434.05</b>	<b>1,893,125,774</b>	<b>159,410,343</b>	<b>261,888,654</b>	<b>180,542,259</b>

<sup>1</sup>Under construction. <sup>2</sup>General capital of Dominion Coal Co. <sup>3</sup>Includes value of used iron rails. <sup>4</sup>Constructed and operated by Ontario Government Commission.

## TRANSPORTATION AND COMMUNICATIONS.

## 6.—Steam Railway Statistics, 1875-1916.

Year.	Miles in operation.	Total Train miles.	Passengers	Freight.	Gross Earnings.	Working Expenses.	Ratio of expenses to receipts.
	No.	No.	No.	Tons.	\$	\$	p.c.
1875..	4,804	17,680,178	5,190,416	5,670,836	19,470,539	15,775,532	81.02
1876..	5,218	18,103,628	5,544,814	6,331,757	19,358,085	15,802,721	81.68
1877..	5,782	19,450,813	6,073,233	6,859,796	18,742,053	15,290,091	81.58
1878..	6,226	19,669,447	6,443,924	7,883,472	20,520,078	16,100,102	78.46
1879..	6,858	20,731,689	6,523,816	8,348,810	19,925,066	16,188,282	81.24
1880..	7,194	22,427,449	6,462,948	9,938,858	23,561,447	16,840,705	71.47
1881..	7,331	27,301,306	6,943,671	12,065,323	27,987,509	20,121,418	71.89
1882..	8,697	27,846,411	9,352,335	13,575,787	29,027,790	22,390,709	77.13
1883..	9,577	36,726,238	9,579,948	13,266,255	33,244,585	24,691,667	74.27
1884..	10,273	29,280,919	9,982,358	13,712,269	33,421,705	25,595,341	76.58
1885..	10,773	31,623,689	9,672,599	14,659,271	32,227,469	24,015,351	74.51
1886..	11,793	30,481,088	9,861,024	15,670,460	33,389,382	24,177,582	72.49
1887..	12,184	33,638,748	10,698,638	16,356,335	38,842,010	27,624,683	71.12
1888..	12,163	37,391,206	11,416,791	17,172,759	42,159,153	30,652,048	72.70
1889..	12,628	38,819,380	12,151,105	17,928,626	42,149,615	31,038,045	73.63
1890..	13,151	41,849,329	12,821,272	20,787,469	46,843,826	32,913,350	70.26
1891..	13,838	43,399,178	13,222,568	21,753,021	48,192,099	34,960,449	72.56
1892..	14,564	44,448,468	13,533,414	22,189,923	51,685,768	36,488,228	70.60
1893..	15,005	44,385,953	13,618,027	22,003,599	52,042,397	36,616,033	70.36
1894..	15,627	43,573,837	13,983,620	20,721,116	49,487,965	35,166,202	71.06
1895..	15,977	40,418,324	12,520,585	21,524,421	46,655,883	32,678,035	70.04
1896..	16,270	43,940,155	13,059,023	24,248,294	50,374,295	34,893,337	69.27
1897..	16,550	44,447,977	13,742,454	25,230,470	52,109,518	34,949,432	68.38
1898..	16,870	48,627,453	14,766,859	28,699,997	59,359,930	28,909,877	65.55
1899..	17,250	50,086,993	15,451,082	31,068,159	61,831,235	40,468,361	65.45
1900..	17,657	42,647,684	17,122,193	35,764,970	70,231,979	47,405,596	67.50
1901..	18,140	53,349,394	18,385,722	36,999,371	72,898,749	50,368,726	69.06
1902..	18,714	55,729,856	20,679,974	42,376,527	83,666,503	57,343,592	68.54
1903..	18,988	60,382,920	22,148,742	47,373,417	96,064,527	67,481,524	70.25
1904..	19,431	61,312,002	23,640,765	48,097,519	100,219,436	74,563,162	74.40
1905..	20,487	65,934,114	25,288,723	50,893,957	106,467,198	79,977,573	75.12
1906..	21,353	72,723,482	27,989,782	57,966,713	125,322,865	87,129,434	69.52
1907..	22,452	75,115,765	32,137,319	63,866,135	146,738,214	103,748,672	70.70
1908..	22,966	78,637,526	34,044,992	63,071,167	146,918,314	107,304,143	73.04
1909..	24,104	79,662,216	32,683,309	66,842,258	145,056,336	104,600,084	72.11
1910..	24,731	85,409,241	35,894,575	74,482,866	173,956,217	120,405,440	69.22
1911..	25,400	89,716,533	37,097,718	79,884,282	188,733,494	131,034,785	69.43
1912..	26,727	100,930,271	41,124,181	89,444,331	219,403,753	150,726,540	68.70
1913..	29,304	113,437,208	46,230,765	106,992,710	256,702,703	182,011,690	70.90
1914..	30,795	107,895,272	46,702,280	101,393,989	243,083,539	178,975,259	73.63
1915..	35,582	93,218,479	46,322,035	87,204,838	199,843,072	147,731,099	73.92
1916..	37,434	111,075,890	49,027,671	109,659,088	261,888,654	180,542,259	68.94

## RAILWAYS.

## 7.—Earnings and Operating Expenses of Steam Railways per mile of line, 1908-1916.

Year.	Gross Earnings.	Operating Expenses.	Net Earnings.	Earnings.	Expenses.
	per mile of line.			per train mile.	
	\$ cts.	\$ cts.	\$ cts.	\$	\$
1908.....	6,397.21	4,673.30	1,723.91	1.869	1.364
1909.....	6,017.89	4,339.53	1,678.36	1.816	1.309
1910.....	7,033.93	4,868.60	2,165.33	2.036	1.409
1911.....	7,430.45	5,158.85	2,271.60	2.103	1.460
1912.....	8,209.07	5,639.48	2,569.59	2.173	1.493
1913.....	8,760.50	6,211.38	2,549.12	2.263	1.604
1914.....	7,893.60	5,811.83	2,081.77	2.253	1.659
1915.....	5,616.41	4,151.57	1,464.84	2.144	1.585
1916.....	6,996.01	4,822.94	2,173.07	2.358	1.623

## 8.—Distribution of Operating Expenses of Steam Railways, 1914-1916.

Items of Expenditure.	1914.		1915.		1916.	
	\$	p.c.	\$	p.c.	\$	p.c.
Way and structures.....	35,292,226.82	19.71	28,762,906.91	19.47	36,040,945.06	19.96
Equipment.....	36,375,330.87	20.32	28,156,261.08	19.06	35,822,484.20	19.84
Traffic expenses.....	6,546,602.45	3.65	5,853,632.65	3.96	5,560,515.12	3.08
Transportation.....	94,119,066.73	52.58	77,985,272.92	52.79	93,067,485.37	51.55
General expenses.....	6,642,032.03	3.74	6,973,025.91	4.72	10,050,829.23	5.57
<b>Total.....</b>	<b>178,975,258.90</b>	<b>100.00</b>	<b>147,731,099.47</b>	<b>100.00</b>	<b>180,542,258.98</b>	<b>100.00</b>

## 9.—Aid to Railways in the form of Guarantees of Bonds, Interest, etc., by the Dominion and Provincial Governments, 1916.

Government.	Authorized.	Bonds executed.	Guarantees earned.
	\$	\$	\$
Dominion.....	189,666,539	183,532,523	183,532,523
Manitoba.....	25,221,580	25,221,580	25,221,580
Alberta.....	58,736,750	42,700,450	42,700,450
Saskatchewan.....	47,725,000	24,655,507	23,670,450
Ontario.....	7,860,000	7,860,000	7,860,000
British Columbia.....	80,332,072	60,978,802	60,978,802
New Brunswick.....	7,763,000	7,763,000	6,431,562
Quebec.....	308,000	308,000	308,000
<b>Total.....</b>	<b>417,612,941</b>	<b>353,019,862</b>	<b>350,703,367</b>

## 10.—Analysis of the Total Financial Aid given to Steam Railways up to June 30, 1916.

By the Dominion Government.		By Provincial Governments.	
	\$		\$
Cash subsidies.....	109,934,005	Cash subsidies.....	29,940,865
Loans.....	25,576,533	Loans.....	7,197,030
		Subscriptions to shares.....	300,000
Paid to Quebec Government.....	5,160,054	<b>Total.....</b>	<b>37,437,895</b>
Cost of lines handed over to C.P.R.....	37,785,320	By Municipalities.	
Implement Clause of Grand Trunk Pacific.....	6,263,716	Cash subsidies.....	12,670,837
		Loans.....	2,404,499
		Subscriptions to shares.....	2,839,500
		<b>Total.....</b>	<b>17,914,836</b>
<b>Total.....</b>	<b>184,719,628</b>	<b>Grand Total.....</b>	<b>240,072,359</b>



## TRANSPORTATION AND COMMUNICATIONS.

11.—Total Amount of Dominion Government Aid paid to Steam Railways up to June 30 of each year, 1875-1916.

Year.	Capital of Govern- ment Railways.	Aid to Other Railways.	Paid by Dominion Govern- ment to Quebec Govern- ment.	Total aid paid to Railways other than Govern- ment Railways.	Grand Total.
	\$	\$	\$	\$	\$
Up to 1875.....	24,785,540	16,233,608	-	16,233,608	41,019,148
1876.....	33,384,177	18,564,352	-	18,564,352	51,948,529
1877.....	39,085,617	16,235,185	-	16,235,185	55,320,802
1878.....	39,500,986	26,438,915	-	26,438,915	65,939,901
1879.....	39,727,625	26,438,915	-	26,438,915	66,166,540
1880.....	41,858,527	32,761,921	-	32,761,921	74,620,448
1881.....	42,441,041	37,629,207	-	37,629,207	80,070,248
1882.....	43,026,352	37,731,208	-	37,731,208	80,757,560
1883.....	44,700,347	49,548,640	-	49,548,640	94,248,987
1884.....	46,236,588	78,123,918	-	78,123,918	124,360,506
1885.....	47,358,907	92,703,117	59,850	92,762,967	140,121,874
1886.....	47,908,724	87,247,265	179,550	87,426,815	135,335,539
1887.....	48,737,763	90,929,424	299,250	91,228,674	139,966,437
1888.....	52,119,442	90,225,624	418,950	90,644,574	142,764,016
1889.....	54,733,984	91,349,841	538,650	91,888,491	146,622,475
1890.....	56,704,283	93,230,928	658,350	93,889,278	150,593,561
1891.....	57,372,827	95,751,474	778,050	96,529,524	153,902,351
1892.....	57,700,015	96,703,890	897,750	97,601,640	155,301,655
1893.....	57,997,416	99,404,715	1,017,450	100,422,165	158,419,581
1894.....	58,431,470	100,950,140	1,137,150	102,087,290	160,518,760
1895.....	58,758,595	102,194,299	1,256,850	103,451,149	162,209,654
1896.....	59,017,610	100,585,214	1,376,550	101,961,764	160,979,374
1897.....	59,166,723	100,962,185	1,496,250	102,458,435	161,625,158
1898.....	59,437,921	102,262,312	1,615,950	103,878,262	163,315,283
1899.....	60,540,951	105,294,989	1,735,650	107,030,639	167,571,590
1900.....	63,849,845	105,905,446	1,855,350	107,760,796	171,610,641
1901.....	68,097,799	108,205,453	1,975,050	110,225,503	178,323,302
1902.....	72,910,445	110,229,341	2,094,750	112,324,091	185,234,536
1903.....	76,290,546	111,576,663	2,214,450	113,791,113	190,081,659
1904.....	78,870,231	113,541,518	2,334,150	115,875,668	194,745,949
1905.....	84,193,801	114,701,648	2,442,864	117,145,512	201,339,313
1906.....	88,454,385	115,923,722	2,550,594	118,474,316	206,928,699
1907.....	90,387,853	126,169,324	2,658,324	128,827,648	219,215,501
1908.....	95,273,779	130,283,322	2,766,054	133,049,376	228,323,155
1909.....	95,714,248	130,359,934	5,160,054	135,549,988	231,264,236
1910.....	100,738,439	146,932,180	-	146,932,180	247,670,619
1911.....	101,595,694	148,217,072	-	148,217,072	249,812,766
1912.....	103,434,184	154,075,235	-	154,075,235	257,509,419
1913.....	105,929,173	163,251,469	-	163,251,469	269,180,642
1914.....	111,956,203	178,834,529	-	178,834,529	290,790,732
1915.....	118,717,647	183,479,193	-	183,479,193	302,196,840
1916.....	127,077,098	184,719,628	-	184,719,628	311,796,726

## RAILWAYS.

## 12.—Cost of Construction, Working Expenses and Revenue of Government Railways, 1868-1916, and before Confederation.

Year.	Cost of con- struction.	Working Expenses. <sup>2</sup>	Revenue. <sup>2</sup>	Surplus (+) and deficit (—).
Before Confederation.....	\$13,881,461	\$ —	\$ —	\$ —
1868-70.....	2,495,350	1,192,718	1,347,021	+ 154,303
1871.....	2,946,930	442,993	565,714	+ 122,721
1872.....	5,620,570	595,076	622,901	+ 27,825
1873.....	5,763,269	1,011,893	703,458	— 308,435
1874.....	3,925,124	1,847,925	893,430	— 954,495
1875.....	5,018,428	1,581,934	886,087	— 695,847
1876.....	4,497,435	1,497,128	966,922	— 530,206
1877.....	3,209,502	1,890,269	1,285,110	— 605,159
1878.....	2,643,742	2,032,873	1,514,846	— 518,027
1879.....	2,507,054	2,233,496	1,419,956	— 813,540
1880.....	6,109,077	1,851,489	1,739,137	— 112,352
1881.....	5,577,237	2,220,421	2,200,486	— 19,935
1882.....	5,175,047	2,310,639	2,237,583	— 73,056
1883.....	11,707,619	2,636,552	2,541,205	— 95,347
1884.....	14,013,075	2,613,509	2,551,938	— 61,571
1885.....	11,224,245	2,749,711	2,624,243	— 125,468
1886.....	4,433,220	2,819,973	2,628,336	— 191,637
1887.....	1,846,887	3,152,650	2,840,748	— 311,902
1888.....	1,765,582	3,621,077	3,166,253	— 454,824
1889.....	2,709,857	3,513,064	3,167,543	— 345,521
1890.....	2,392,768	3,846,044	3,203,874	— 642,170
1891.....	1,184,317	3,949,264	3,181,889	— 767,375
1892.....	417,426	3,748,598	3,136,394	— 612,204
1893.....	712,917	3,288,630	3,262,506	— 26,124
1894.....	585,749	3,226,208	3,179,020	— 47,188
1895.....	376,815	3,197,846	3,129,450	— 68,396
1896.....	324,775	3,254,443	3,140,679	— 113,764
1897.....	204,624	3,195,960	3,060,074	— 135,886
1898.....	270,991	3,507,249	3,313,847	— 193,402
1899.....	1,112,348	3,696,612	3,940,570	+ 243,958
1900.....	3,309,130	4,665,228	4,774,162	+ 108,934
1901.....	3,922,989	5,739,052	5,213,381	— 525,671
1902.....	5,386,611	5,861,099	5,918,990	+ 57,891
1903.....	3,083,681	6,474,134	6,584,599	+ 110,465
1904.....	2,619,060	7,599,959	6,627,256	— 972,703
1905.....	6,125,482	8,906,154	7,050,892	— 1,855,262
1906.....	6,102,566	7,893,653	7,950,553	+ 56,900
1907 (9 mos.).....	7,174,370	6,328,746	6,509,186	+ 180,440
1908.....	23,684,005	9,595,295	9,534,569	— 60,726
1909.....	29,414,227	9,764,587	8,894,420	— 870,167
1910.....	21,505,976	9,095,904	9,647,964	+ 552,060
1911.....	24,532,466	10,037,879	10,249,394	+ 211,515
1912.....	23,108,806	11,074,853	11,034,166	+ 40,687
1913.....	17,375,968	12,499,926	12,442,203	— 57,723
1914.....	21,628,095	13,559,225	13,394,317	— 164,908
1915.....	21,865,095	12,474,454	12,149,357	— 325,097
1916.....	21,155,255	19,407,389	18,427,909	— 979,571
<b>Total.....</b>	<b>365,657,792<sup>1</sup></b>	<b>237,703,772</b>	<b>224,854,538</b>	<b>—12,849,234</b>

<sup>1</sup> Less \$40,000 received from St. John City for the Carleton Branch Railway = \$366,617,792. <sup>2</sup> Includes Windsor Branch.

## TRANSPORTATION AND COMMUNICATIONS.

## 13.—Capital Expenditure by Dominion Government for construction of Government Steam Railways to March 31, 1916.

Railways.	\$
Intercolonial.....	106,015,832
Now forming parts of the Intercolonial:	
Cape Breton.....	3,860,679
Oxford and New Glasgow.....	1,949,063
Eastern Extension.....	1,324,043
Drummond County.....	1,464,000
Montreal and European Short Line.....	333,943
Canada Eastern.....	819,000
Prince Edward Island.....	10,841,372
National Transcontinental.....	159,881,197
Canadian Pacific.....	62,789,776
Annapolis and Digby.....	660,683
Yukon Territory Works (Stikine-Teslin Ry.).....	283,324
Carleton Branch.....	48,411
Hudson Bay Railway.....	15,749,908
International Railway of New Brunswick.....	3,938
New Brunswick and Prince Edward Island Railway.....	224,211
Miscellaneous (Governor-General's Cars).....	71,539
Add Capital I. C. R. transferred to Consolidated Fund.....	296,873
<b>Totals.....</b>	<b>366,617,792</b>

## 14.—Mileage and Rolling Stock of Steam Railways, 1911-1916.

Mileage and Engines.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.
Miles in operation.....	25,400	26,727	29,304	30,795	35,582	37,434
Miles of sidings.....	5,573	6,172	6,977	7,560	7,852	8,456
Miles of iron rails in main line.....	34	9	3	—	—	—
Miles of steel rails in main line.....	25,366	26,718	29,301	30,795	35,582	37,434
Miles of steel rails in double track.....	1,610	1,752	1,984	2,293	2,451	2,489
Engines in use.....	4,219	4,484	5,119	5,447	5,486	5,490
Passenger Cars.						
First Class.....	1,601	1,788	2,058	2,167	2,213	2,187
Second Class.....	517	550	627	627	632	706
Combination.....	434	453	492	491	486	409
Emigrant.....	357	389	437	466	509	519
Dining.....	137	159	176	204	215	215
Parlour.....	80	89	117	130	138	138
Sleeping.....	306	353	440	500	538	556
Baggage, express and postal.....	1,045	1,132	1,275	1,378	1,457	1,458
Other.....	36	33	74	39	138	138
Freight Cars.						
Box.....	79,412	89,982	128,511	146,607	145,307	144,696
Flat.....	21,069	22,000	25,117	26,151	25,315	25,542
Stock.....	5,809	6,322	6,745	7,589	7,638	7,775
Coal.....	13,768	14,715	14,746	15,955	15,703	15,598
Tank.....	277	390	479	496	563	416
Refrigerator.....	2,807	3,082	3,911	4,716	4,713	4,740
Other.....	4,016	4,427	2,712	2,676	2,551	2,847

## RAILWAYS.

## 15.—Freight hauled on Steam Railways, 1912-1916.

Products.	1912.	1913.	1914.	1915.	1916.
	Tons.	Tons.	Tons.	Tons.	Tons.
<b>Products of Agriculture—</b>					
Grain.....	9,741,671	10,386,282	11,473,733	9,159,793	18,957,627
Flour.....	2,303,607	2,374,198	2,432,673	2,514,609	3,184,922
Other mill products...	1,387,624	1,310,167	1,347,491	1,486,665	1,685,147
Hay.....	2,130,803	1,172,022	1,182,804	1,211,835	1,323,954
Tobacco.....	68,737	65,439	49,819	38,580	47,694
Cotton.....	135,277	93,807	105,429	108,877	143,950
Fruit and vegetables...	1,135,082	1,295,568	1,374,992	1,474,314	1,299,063
Other products of agriculture.....	398,144	499,269	403,539	391,236	463,354
<b>Products of animals—</b>					
Live stock.....	1,345,182	1,226,242	1,424,528	1,387,103	1,428,887
Dressed meats.....	591,232	616,274	587,174	608,062	630,992
Other packing house products.....	392,046	371,663	358,607	395,364	615,701
Poultry, game and fish	204,421	263,760	292,734	282,856	360,892
Wool.....	34,320	40,684	38,867	41,156	105,912
Hides and leather.....	227,745	205,583	183,646	211,411	277,580
Other products of animals.....	364,334	449,356	457,944	430,705	486,395
<b>Products of mines—</b>					
Anthracite coal.....	5,938,466	8,485,652	6,624,763	6,477,642	7,057,628
Bituminous coal.....	15,027,311	17,930,653	18,384,819	16,114,480	18,122,835
Coke.....	1,166,874	2,010,198	1,552,298	1,171,427	1,772,854
Ores.....	3,190,470	4,348,666	4,570,745	3,524,211	5,610,548
Stone, sand, etc.....	5,186,763	6,350,395	6,211,671	4,841,415	3,801,874
Other products of mines	957,915	1,104,978	915,874	998,366	1,484,345
<b>Products of forests—</b>					
Lumber.....	8,129,314	9,590,068	8,809,572	7,985,885	8,551,087
Other products of forests.....	6,023,407	7,019,032	7,202,525	5,990,670	8,007,442
<b>Manufactures—</b>					
Petroleum and other oils	728,643	807,062	901,324	868,214	1,117,315
Sugar.....	635,757	820,252	779,276	707,714	744,866
Naval stores.....	9,472	19,898	17,195	28,961	81,768
Iron, pig and bloom...	1,104,177	1,394,725	1,227,528	488,216	1,259,343
Iron and steel rails...	859,897	1,304,551	1,031,361	450,761	749,993
Castings and machinery	1,214,709	1,499,084	1,258,886	891,063	1,316,572
Bar and sheet metal...	970,091	1,305,682	904,859	635,156	1,213,797
Cement, brick and lime.	2,996,992	3,958,419	3,479,186	2,419,246	2,216,868
Agricultural imple- ments.....	552,470	593,470	468,156	285,491	366,461
Wagons, carriages, tools etc.....	252,638	286,069	275,060	339,749	516,368
Wines, liquors and beers.	325,412	372,495	349,635	247,944	269,271
Household goods and furniture.....	434,242	493,629	459,990	295,496	366,399
Other manufactures...	6,156,581	6,838,904	5,681,670	4,928,391	6,648,762
Merchandise.....	2,711,963	4,365,852	5,113,603	5,272,163	4,622,224
Miscellaneous.....	4,410,542	4,161,151	3,397,697	2,393,123	2,748,398



## TRANSPORTATION AND COMMUNICATIONS.

## 15.—Freight hauled on Steam Railways, 1912-1916—concluded.

## SUMMARY.

Products.	1912.	1913.	1914.	1915.	1916.
	Tons.	Tons.	Tons.	Tons.	Tons.
Products of agriculture.....	11,500,945	17,196,802	18,370,486	16,335,906	27,465,711
Products of animals.....	3,159,280	3,173,563	3,343,500	3,356,657	3,906,359
Products of mines.....	31,467,700	40,230,542	38,260,176	33,127,537	37,850,084
Products of forests.....	14,152,721	16,609,100	16,012,097	13,976,555	16,558,529
Manufactures.....	16,241,081	19,694,240	16,834,126	12,586,393	16,867,783
Merchandise.....	2,711,963	4,365,852	5,113,603	5,272,163	4,622,224
Miscellaneous.....	4,410,345	4,161,154	3,397,607	2,393,123	2,748,398
Totals.....	89,444,331	106,992,710	101,394,753	87,204,838	109,659,088

Includes as not distributed, 1,561,457 tons in 1913, 63,176 tons in 1914 and 106,593 tons in 1915.

## 16.—Total Salaries and Wages, with Ratios of same to Gross Earnings and Operating Expenses on Steam Railways, 1907-1916.

Year.	Salaries and wages.	Ratio to gross earnings.	Ratio to operating expenses.	Year.	Salaries and wages.	Ratio to gross earnings.	Ratio to operating expenses.
	\$	p.c.	p.c.		\$	p.c.	p.c.
1907....	58,719,493	40.01	50.76	1912....	94,237,623	39.79	57.92
1908....	60,376,607	41.09	56.26	1913....	115,749,825	45.09	63.59
1909....	63,216,662	43.58	60.43	1914....	111,762,972	45.97	62.43
1910....	67,167,793	38.61	55.78	1915....	90,215,727	45.15	61.09
1911....	74,613,738	39.53	56.94	1916....	104,300,647	39.82	57.95

## 17.—Distribution of Salaries and Wages and Number of Employees on Steam Railways, 1915-1916.

Description.	1915.		1916.	
	No.	Salaries and Wages.	No.	Salaries and Wages.
General offices.....	4,417	3,948,190	4,252	3,938,256
Road.....	40,031	20,637,230	48,937	22,835,182
Equipment.....	29,265	19,994,685	33,560	23,997,250
Traffic.....	2,103	2,040,847	2,223	2,317,186
Transportation.....	48,326	43,594,766	55,798	51,212,773
Totals.....	124,142	90,215,727	144,770	104,300,647

## RAILWAYS.

18.—Number of Employees by Groups and Classes, with Number of Days Worked and amount of Salaries and Wages Paid on Steam Railways, 1916.

Group and Class.	Num-ber.	No. of days worked.	Salaries and Wages.	
			Yearly.	Daily average.
			\$	\$ c.
<b>I. General offices:—</b>				
General officers.....	308	91,406	1,192,544	13.04
Chief clerks.....	174	55,777	243,073	4.35
Other clerks.....	2,714	876,833	1,745,803	1.99
Stenographers and typists.....	541	171,685	311,709	1.23
Telephone and telegraph operators.....	83	28,356	65,274	2.30
Messengers and attendants.....	151	53,678	74,151	1.40
Other general office employees.....	281	84,114	305,702	3.49
<b>Total.....</b>	<b>4,252</b>	<b>1,361,849</b>	<b>3,938,256</b>	<b>—</b>
<b>II. Road:—</b>				
Officers.....	490	157,848	851,835	5.39
Clerks.....	373	115,534	287,304	2.48
Shop foremen.....	45	15,053	40,080	2.66
Structural iron-workers.....	72	15,467	40,169	2.59
Machinists.....	14	2,072	6,019	2.90
Masons and bricklayers.....	98	15,171	49,504	3.26
Carpenters.....	1,681	401,888	1,111,454	2.76
Painters.....	816	96,602	251,429	2.60
Other M.W.S. <sup>1</sup> shopmen.....	110	19,775	41,603	2.10
Other skilled labourers.....	1,551	332,178	899,922	2.70
Section foremen.....	5,728	1,772,237	4,619,926	2.60
Watchmen and trackwalkers.....	447	133,980	264,772	1.97
Other sectionmen.....	24,119	5,518,493	10,014,953	1.81
Unskilled labourers.....	6,046	907,440	1,578,530	1.73
All other M.W.S. <sup>1</sup> employees.....	1,674	432,865	1,001,442	2.31
Foremen of construction gangs.....	288	60,750	208,380	3.43
Other men in construction gangs...	5,385	861,367	1,567,860	1.82
<b>Total.....</b>	<b>48,937</b>	<b>10,858,720</b>	<b>22,835,182</b>	<b>—</b>
<b>III. Equipment:—</b>				
Officers.....	201	60,569	418,601	6.91
Clerks and attendants.....	1,297	371,600	865,853	2.33
Shop foremen.....	954	332,703	1,235,418	3.71
Machinists.....	3,723	1,004,434	3,647,400	3.33
Carpenters.....	3,977	970,430	2,634,432	2.76
Painters and upholsterers.....	1,951	242,927	708,656	2.91
Other shopmen.....	14,498	3,875,940	9,675,635	2.49
Car Inspectors.....	1,388	473,584	1,169,682	2.51
Watchmen.....	237	76,466	142,725	1.86
All other M. E. <sup>2</sup> employees.....	6,340	1,645,790	3,448,848	2.09
<b>Total.....</b>	<b>33,560</b>	<b>9,054,443</b>	<b>23,997,250</b>	<b>—</b>

<sup>1</sup> NOTE.—M.W.S. signifies "Maintenance of Way and Structures." M.E. signifies "Maintenance of Equipment."

## TRANSPORTATION AND COMMUNICATIONS

18.—Number of Employees by Groups and Classes, with Number of Days Worked, and amount of Salaries and Wages Paid on Steam Railways, 1916—concluded.

Group and Class.	Num-ber.	No. of days worked.	Salaries and wages.	
			Yearly.	Daily average.
			\$	\$ c.
<b>IV. Traffic:—</b>				
Officers.....	177	53,848	539,822	10.02
Clerks and attendants.....	1,005	325,071	799,320	2.45
Travelling solicitors.....	88	28,697	109,812	3.82
Employees in outside agencies.....	742	237,237	723,892	3.05
All other traffic employees.....	211	67,530	144,340	2.13
<b>Total.....</b>	<b>2,223</b>	<b>712,383</b>	<b>2,317,186</b>	<b>-</b>
<b>V. Transportation:—</b>				
Officers.....	370	122,080	926,681	7.59
Clerks and attendants.....	2,593	855,527	1,773,314	2.07
Dispatchers.....	463	153,501	778,579	5.07
Station agents.....	3,366	1,125,645	3,270,804	2.90
Operators, not agents.....	2,031	691,703	1,883,525	2.72
Other station employees.....	11,657	3,344,515	6,569,226	1.96
Yardmasters and yard clerks.....	820	275,049	761,064	2.76
Yard enginemen.....	1,984	563,694	2,098,467	3.72
Yard conductors and brakemen.....	2,838	873,609	3,264,938	3.73
Yard switchmen.....	422	138,787	289,980	2.09
Other yard employees.....	318	91,285	158,715	1.73
Engine-house employees.....	4,177	1,207,085	2,404,372	1.99
Road enginemen and motormen.....	8,951	2,551,365	11,709,345	4.58
Passenger conductors.....	899	295,726	1,339,081	4.52
Freight conductors.....	2,644	888,758	3,977,887	4.53
Other road trainmen.....	7,092	2,462,313	7,188,303	2.91
Operators, interlockers and signals..	448	152,647	287,790	1.88
Crossing flagmen and gatemen.....	513	180,143	266,559	1.48
Drawbridge operators.....	137	36,410	67,467	1.85
Employees on floating equipment....	298	88,684	221,153	2.49
Employees in express service.....	199	59,819	96,156	1.60
Employees in claim department.....	92	31,305	78,851	2.51
All other transportation employees..	3,486	878,814	1,800,516	2.05
<b>Total.....</b>	<b>55,770</b>	<b>17,068,464</b>	<b>51,212,733</b>	<b>-</b>
<b>Grand Total.....</b>	<b>144,770</b>	<b>39,055,859</b>	<b>104,300,647</b>	<b>-</b>

## RAILWAYS.

19.—Number of Passengers, Employees and Others Killed and Injured on Steam Railways, 1888-1916.

Year.	Passengers.		Employees.		Others.		Totals.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1888-1889..	57	173	196	1,256	188	221	441	1,650
1890.....	11	52	83	682	124	101	218	835
1891.....	13	105	65	582	118	131	196	818
1892.....	14	43	110	697	109	139	233	879
1893.....	11	57	72	531	133	120	216	708
1894.....	12	58	67	517	132	105	211	680
1895.....	9	42	51	487	123	121	183	650
1896.....	11	62	46	445	103	111	160	618
1897.....	6	67	76	579	130	152	212	798
1898.....	5	63	96	860	164	162	265	1,085
1899.....	20	119	119	882	144	184	283	1,185
1900.....	7	125	123	941	193	238	323	1,304
1901.....	16	135	118	970	183	212	317	1,317
1902.....	14	176	152	932	164	220	330	1,328
1903.....	53	258	186	945	181	250	420	1,453
1904.....	25	234	192	912	178	259	395	1,407
1905.....	35	244	208	919	225	194	468	1,355
1906.....	16	233	139	890	206	242	361	1,365
1907.....	70	355	259	1,569	269	228	598	2,152
1908.....	28	345	224	1,793	184	222	436	2,360
1909.....	36	281	209	1,679	260	226	505	2,186
1910.....	62	279	295	1,605	258	255	615	2,139
1911.....	28	297	227	2,715	236	317	493	3,329
1912.....	48	493	234	2,924	288	363	568	3,780
1913.....	41	667	324	3,407	377	498	742	4,572
1914.....	27	415	224	3,161	349	463	600	4,039
1915.....	17	336	115	2,573	247	362	379	3,271
1916.....	20	309	174	4,332	274	337	468	4,978
Total...	712	6,023	4,384	39,785	5,540	6,433	10,636	52,241



## TRANSPORTATION AND COMMUNICATIONS.

## 26.—Number of Persons Killed and Injured on Steam Railways, 1914-1916.

## (A) IN ACCIDENTS RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS.

Description of Persons.	1914.		1915.		1916.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers.....	25	402	17	304	20	291
Employees.....	200	1,475	102	946	149	1,455
Trespassers.....	289	279	168	147	191	141
Non-trespassers.....	48	114	73	167	77	158
Postal clerks, expressmen, etc.	3	17	-	14	-	13
<b>Total</b> .....	<b>565</b>	<b>2,287</b>	<b>360</b>	<b>1,578</b>	<b>437</b>	<b>2,653</b>
Description of Accident—						
Coupling and uncoupling...	16	129	9	78	12	135
Collisions.....	39	137	12	167	50	170
Derailments.....	20	262	9	107	14	162
Parting of trains.....	-	11	1	12	-	38
Locomotives or cars breaking down.....	2	24	1	17	-	14
Falling from trains or cars.	46	325	35	229	35	297
Jumping on or off.....	39	256	23	237	29	260
Struck by trains, etc.....	336	414	252	280	269	337
Overhead obstruction.....	-	21	1	28	1	27
Other causes.....	67	708	17	423	27	618
<b>Total</b> .....	<b>565</b>	<b>2,287</b>	<b>360</b>	<b>1,578</b>	<b>437</b>	<b>2,658</b>

## (B) IN ACCIDENTS OTHER THAN THOSE RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS.

Description of Persons.	1914.		1915.		1916.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Stationmen.....	1	143	-	136	-	237
Shopmen.....	2	574	1	574	1	1,184
Trainmen and Trackmen....	6	492	4	429	8	520
Other employees.....	15	477	8	488	16	936
Passengers.....	2	13	-	32	-	18
Others.....	9	53	6	34	6	25
<b>Total</b> .....	<b>35</b>	<b>1,752</b>	<b>19</b>	<b>1,693</b>	<b>31</b>	<b>2,920</b>
Description of Accident—						
Handling traffic.....	4	233	1	165	2	213
Handling tools, machinery, etc.....	3	583	4	558	6	990
Handling supplies, etc.....	2	257	1	248	-	419
Getting on or off engines or cars.....	-	68	2	81	-	113
Other causes.....	26	611	11	641	23	1,155
<b>Total</b> .....	<b>35</b>	<b>1,752</b>	<b>19</b>	<b>1,693</b>	<b>31</b>	<b>2,920</b>

## RAILWAYS.

## 21.—Electric Railway Statistics, 1901-1916.

Year.	Miles in Operation.	Total Car Mileage.	Passengers.	Freight.	Gross Earnings.	Working Expenses.	Ratio of Expenses to receipts.
	No.	No.	No.	Tons.	\$	\$	p.c.
1901	674.58	31,750,754	120,934,656	287,926	5,768,283	3,435,162	59.55
1902	557.59	35,833,841	135,681,402	266,182	6,486,438	3,802,855	58.63
1903	759.34	38,028,529	155,662,812	371,286	7,233,677	4,472,858	61.83
1904	766.50	42,066,124	181,689,998	400,161	8,453,609	5,326,510	63.01
1905	793.12	45,959,101	203,467,217	510,351	9,337,125	5,918,194	63.25
1906	818.74	50,618,836	237,655,074	506,024	10,966,871	6,675,037	60.87
1907	814.52	53,361,227	273,999,404	479,731	12,630,430	7,373,251	58.38
1908	992.03	56,964,881	299,069,309	732,475	14,007,049	8,695,880	62.08
1909	988.97	60,152,846	314,026,671	-	14,611,484	8,885,235	60.81
1910	1,047.07	65,249,166	360,964,876	\$52,294	17,100,789	10,121,781	59.19
1911	1,223.73	72,618,800	426,296,792	1,228,362	20,356,952	12,096,134	59.42
1912	1,308.17	82,070,064	488,865,682	1,435,525	23,499,250	14,266,675	60.71
1913	1,356.63	89,005,216	597,863,801	1,957,930	28,216,111	17,765,372	62.96
1914	1,560.82	98,917,808	614,709,819	1,845,923	29,691,007	19,107,818	64.36
1915	1,590.29	96,964,829	562,302,373	1,423,602	26,922,900	18,131,842	67.35
1916	1,673.77	82,516,612	580,694,167	1,936,674	27,416,285	18,099,906	66.02

## 22.—Mileage and Equipment of Electric Railways, 1914-1916.

Mileage.	1914.	1915.	1916.	Cars.	1914.	1915.	1916.
	No.	No.	No.		No.	No.	No.
Length of first main track....	1,560.82	1,590.29	1,673.77	Passenger cars, closed.....	2,121	2,447	1,986
Length of second main track....	338.91	348.88	333.48	Passenger cars, open.....	856	824	513
Total length of main track....	1,899.73	1,939.17	2,007.25	Passenger cars, combination..	1,104	792	765
Length of sidings and turn-outs..	152.71	163.78	184.79	Freight cars....	649	693	658
Total, computed as single track	2,052.44	2,102.95	2,192.04	Mail, express & baggage cars..	35	40	42
				Combination, passenger and freight cars...	8	23	13
				Work cars.....	236	216	197
				Snow ploughs...	61	58	45
				Sweepers.....	131	127	102
				Miscellaneous...	115	109	121

## 23.—Capital Liability of Electric Railways. 1908-1916.

Year.	Stocks.	Funded Debt.	Total.	Year.	Stocks.	Funded Debt.	Total.
	\$	\$	\$		\$	\$	\$
1908	59,235,266	37,114,619	87,409,885	1913	62,079,767	79,155,864	141,235,631
1909	51,046,439	39,058,556	91,004,995	1914	66,311,098	81,284,244	147,595,342
1910	58,655,829	43,391,152	102,044,979	1915	66,696,675	83,647,327	150,344,002
1911	62,251,203	49,281,144	111,532,347	1916	67,738,275	87,157,361	154,895,584
1912	70,829,118	52,012,828	122,841,946				

## TRANSPORTATION AND COMMUNICATIONS.

## 24.—Mileage, Capital, Earnings and Operating Expenses of Electric Railways, 1916.

Name of Railway.	Miles operated.	Capital.	Earnings.	Operating expenses.
	No.	\$	\$	\$
Berlin and Waterloo Street.....	3.28	155,609	51,657	36,011
Berlin and Northern.....	3.15	19,800	8,271	6,960
Berlin, Waterloo, Wellesley and Lake Huron.....	17.81	551,000	218,032	122,645
Brandon Municipal.....	10.31	450,000	29,259	28,660
Brantford Municipal.....	29.96	270,000	99,718	64,938
Brantford and Hamilton.....	23.00	960,000	141,647	109,233
British Columbia.....	242.55	16,000,000	2,468,143	2,448,896
Cape Breton and leased lines.....	30.52	2,455,000	220,412	135,932
Chatham, Wallaceburg and Lake Erie.	36.94	1,455,100	148,164	81,212
Cornwall Street.....	4.00	200,000	33,555	22,359
Calgary Municipal.....	55.00	2,280,210	548,495	375,778
Canadian Resources Development Co..	1.75	486,000	332	1,479
Edmonton Radial.....	52.37	2,996,816	534,163	367,895
Edmonton Interurban (not operated)..	8.19	600,000	—	—
Fort William.....	19.88	1,112,000	113,421	87,643
Fort William Terminal Ry. and Bridge Co.....	—	125,000	—	—
Grand Valley (now Brantford Mun.)...	—	1,788,800	—	—
Guelph Radial.....	8.50	169,000	45,143	33,628
Halifax Tramway Co.....	12.29	2,000,000	350,077	212,271
Hamilton and Dundas.....	7.00	200,000	75,600	56,059
Hamilton, Grimsby and Beamsville...	22.00	385,000	136,420	124,280
Hamilton Radial.....	25.00	271,150	171,407	155,042
Hamilton Street.....	30.06	1,645,000	659,709	414,301
Hull.....	15.67	292,000	157,801	124,537
International Transit Co.....	4.30	370,000	97,386	64,204
Kingston, Portsmouth and Cataraqui..	8.00	182,350	43,230	30,763
Lethbridge Municipal.....	11.00	408,877	46,853	41,039
Levis County.....	11.75	564,000	94,977	84,103
London Street.....	35.19	1,255,000	422,641	282,250
London and Lake Erie Ry.....	28.00	2,840,000	82,410	85,594
London and Port Stanley.....	23.60	900,000	281,058	180,620
Moncton Tramway Co.....	4.47	1,512,400	16,809	18,532
Montreal Tramways.....	124.26	35,735,457	6,609,765	3,707,053
Montreal and Southern Counties.....	52.20	1,949,627	217,379	215,435
Moosejaw.....	9.00	751,227	89,600	73,989
Nelson Street, B.C.....	2.13	81,000	11,635	13,128
Nipissing Central.....	15.37	530,000	108,215	72,635
Niagara Falls, Park and River.....	11.91	600,000	121,243	240,982
Niagara, St. Catharines and Toronto..	63.07	2,023,000	691,594	423,636
Niagara, Welland and Lake Erie.....	1.87	311,500	25,739	10,569
Oshawa.....	9.00	118,452	105,391	61,826
Ottawa.....	28.11	2,331,900	1,081,303	646,578
Peterborough Radial.....	6.39	292,753	56,702	37,171
Port Arthur.....	12.43	886,647	96,375	81,040
Pictou County.....	—	600,000	—	—
Quebec Railway, Light and Power Co. (Citadel division).....	19.91	5,763,434 <sup>1</sup>	523,525	322,695
Quebec Railway, Light and Power Co. (Montmorency division).....	28.60		210,398	144,971
Regina Municipal.....	31.35	1,475,000	192,866	186,948
Sandwich, Windsor and Amherstburg..	40.78	897,000	331,109	191,138
Sarnia.....	8.25	170,000	62,937	44,712
Saskatoon Municipal.....	12.63	739,644	167,873	116,624
Sherbrooke Street.....	9.00	2,251,400	49,621	38,086
St. John, N.B.....	—	1,800,000	—	—

<sup>1</sup> Including capital for lighting, power and gas plants.

## RAILWAYS.

24.—Mileage, Capital, Earnings and Operating Expenses of Electric Railways, 1916  
—concluded.

Name of Railway.	Miles operated.	Capital.	Earnings.	Operating expenses.
	No.	\$	\$	\$
St. Stephen, N.B. ....	7.00	200,000	40,530	29,622
St. Thomas Street. ....	7.00	85,028	22,263	27,238
Suburban Rapid Transit (Winnipeg)...	21.02	600,000	48,085	67,642
Sydney and Glace Bay. ....	—	902,000	—	—
Toronto Street. ....	59.48	16,912,066	5,839,393	3,227,963
Toronto Suburban. ....	18.79	4,128,000	164,640	80,667
Toronto and York Radial. ....	72.43	3,640,000	547,850	382,607
Windsor, Essex and Lake Shore Rapid.	36.17	1,500,000	165,195	103,829
Winnipeg, Selkirk and Lake Winnipeg..	39.40	515,000	129,236	82,717
Winnipeg Street <sup>1</sup> . ....	110.14	18,380,000	2,121,653	1,401,578
Yarmouth Street <sup>1</sup> . ....	3.00	432,000	39,341	21,666
Windsor and Tecumseh. ....	—	289,000	—	—
Schomberg and Aurora. ....	14.40	550,000	13,686	15,638
Three Rivers Traction Co. ....	4.00	500,700	21,493	19,270
Toronto Civic Railway. ....	9.14	2,082,737	212,859	193,389
<b>Totals. ....</b>	<b>1,673.77</b>	<b>154,895,584</b>	<b>27,416,284</b>	<b>18,099,906</b>

<sup>1</sup>Capitalization covers outside operations.25.—Number of Passengers, Employees and others Killed and Injured  
on Electric Railways, 1894-1916.

Year.	Passengers.		Employees.		Others.		Totals.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1894-1899..	1	23	2	9	9	12	12	44
1900. ....	—	6	—	—	2	7	2	13
1901. ....	3	158	1	58	11	98	15	314
1902. ....	9	410	1	33	22	120	32	563
1903. ....	10	504	7	62	22	212	39	778
1904. ....	10	508	3	64	40	272	53	844
1905. ....	30	862	3	87	23	347	56	1,296
1906. ....	11	1,085	2	127	34	441	47	1,653
1907. ....	27	988	7	216	37	532	71	1,736
1908. ....	18	1,156	6	188	43	539	67	1,883
1909. ....	11	1,303	7	218	50	618	68	2,139
1910. ....	14	1,595	13	227	68	716	95	2,538
1911. ....	11	1,784	8	300	83	586	102	2,670
1912. ....	16	1,950	8	442	86	736	110	3,128
1913. ....	17	1,662	12	392	44	490	73	2,544
1914. ....	9	1,757	13	469	42	581	64	2,607
1915. ....	14	1,554	6	413	44	638	64	2,805
1916. ....	18	1,905	4	305	28	819	50	3,029
<b>Totals. . .</b>	<b>229</b>	<b>19,210</b>	<b>103</b>	<b>3,610</b>	<b>688</b>	<b>7,764</b>	<b>1,020</b>	<b>30,584</b>



## TRANSPORTATION AND COMMUNICATIONS.

**Electric Railways.**—During 1916 the total capital liability of electric railways, which for the most part consist of urban street trainways, was increased from \$150,344,002 to \$154,895,584. Of this amount \$67,738,275 are in stocks, and \$87,157,309 are in funded debt. The number of passengers carried was 580,094,167, as compared with 562,302,373 in 1915. The freight hauled in 1916 was 1,936,674 tons, as compared with 1,433,602 tons in 1915. Gross earnings were \$27,416,235, as against \$26,922,900 in 1915, and operating expenses were \$18,009,906 against \$18,131,812 in 1915. These and other particulars, with comparative figures, are set out in Tables 21-25. The number of employees in the service of electric railways on June 30, 1916, was 10,622, as compared with 14,795 in 1915. The total salaries and wages for the year 1916 were \$8,767,734, as against \$10,781,199 in 1915. The total mileage of electric railways computed as single track in 1916 was 2,192, as compared with 2,103 in 1915.

## MOTOR VEHICLES.

The use of motor vehicles has increased so rapidly during recent years that this means of transportation is now become one of the most important in Canada. In 1904, the number of motor vehicles registered in Ontario was only 535; in 1916 the number was 54,375. In Quebec province the number has grown from 254 in 1907 to 15,335 in 1916. For Alberta the number of registered cars in 1906 was 41; in 1916 the number was 9,516. As will be seen from Table 26 there has been a great increase in the number of motor vehicles registered in each of the provinces, whilst the total number of motor vehicles registered for all Canada in 1916 is 123,464 as compared with 69,598 in 1914, an increase of 77 p.c. in three years. The following is a brief synopsis of the laws and regulations in force in each province, and Table 27 summarizes the legal speed limits by provinces under the varying conditions specified.

**Prince Edward Island.**—Under the Motor Vehicles Act, 1913, with amendments and regulations, all cars must be registered in the office of the Provincial Secretary. In addition to the registration fee an annual tax is payable on the 1st of May, but this is not required of non-residents unless the car is used in the province during more than four weeks in one year. All drivers of cars, owners included, must be eighteen years old and must be licensed. Every car must have a lock or other device to prevent it from being operated when left unattended. The use of motor vehicles is forbidden on Sunday between 9 a.m. and 1 p.m. and between 6 p.m. and 9 p.m. The speed limits are, in cities, towns and villages,  $7\frac{1}{2}$  miles an hour, in places which are closely built up, 10 miles, where there is not a clear view of the road for at least 200 yards, 12 miles, and in all other places 15 miles an hour. The number of cars registered in 1917 is 300.

**Nova Scotia.**—The Motor Vehicles Act, 1914, and amending Acts, require cars to be registered by the Provincial Secretary, who issues permits renewable annually on January 1. Cars belonging to persons residing out of Nova Scotia need not be registered if cars are registered

## MOTOR VEHICLES.

in place where owners reside, and if owners do not reside or carry on business in Nova Scotia for more than three months in each year. No person under 16 may operate a motor vehicle, and paid chauffeurs must be at least 18 and must take out licenses. Cars must have devices which will prevent their operation when left unattended and must also have mufflers. The speed limits are, in cities, towns and villages and in places where there is no clear view of the road for at least 200 yards, 15 miles an hour, at cross-roads and bridges, 8 miles, and in other places, 20 miles an hour. On September 30, 1917, the number of permits to use cars was 5,087.

**New Brunswick.**—Under the Motor Vehicle Law, 1915, as amended May, 1917, the registering and licensing authority is the Department of Public Works. Cars must be re-registered every third year, and, besides the registration fee, an annual fee is payable on January 1. Non-residents may operate cars registered in another province or state during not more than 21 days in any year without registration in New Brunswick. The driver of a car must be 18 years old, and must be the owner or a member of his household, a licensed chauffeur or a person accompanied by a chauffeur; all chauffeurs must take out licenses. The speed limits are, in cities, towns and villages, 12 miles an hour, in places which are closely built up, 15 miles an hour, and in places where the road cannot be seen clearly for 200 yards, 20 miles an hour.

**Quebec.**—The law as to motor vehicles is contained in the Revised Statutes 1909, ch. Fourth, s. xxi, and amending Acts. Cars must be registered in the office of the Provincial Treasurer and re-registered annually on March 1. No registration in the province is required of cars registered outside the province, provided that similar exemption is granted by law of the state or province in which the tourist resides. All drivers of cars must be licensed and must be not less than 18 years old. Cars, when left unattended must be locked in such a way as to prevent their use, and all cars must have mufflers. The speed limits are, in cities, towns and villages, 16 miles an hour, on highways where the land is closely built up, 16 miles an hour, at bridges and cross-roads, 4 miles an hour and in open country 25 miles an hour. Motors must stop for street cars which are standing to take on or discharge passengers.

**Ontario.**—The acts concerning motor vehicles are the Motor Vehicles Act, R.S.O., 1914, ch. 207, the Highway Travel Act, R.S.O., 1914, ch. 206, with amending Acts, and the Load of Vehicles Act, 1916. The registering authority is the Department of Public Highways, which issues permits that remain in force for the calendar year. Cars may be used without registration for not more than three months in one year, if registered in some other province, or for 30 days in one year if registered in certain of the United States which have entered into agreement with the province of Ontario. No person less than 16 years old may drive a car, and those between the ages of 16 and 18, as well as all paid chauffeurs, must be licensed. Cars must be equipped with mufflers. The speed limit in cities, towns and villages is 15 miles an hour, in other places 20 miles an hour. A motor may not pass a street car which has stopped for passengers to get on or off.

## TRANSPORTATION AND COMMUNICATIONS.

**Manitoba.**—Under the Motor Vehicles Act, 1916, cars must be registered in the office of the Municipal Commissioner, and the registration is renewable annually on April 1. A person not resident in the province may operate an unregistered car for not more than thirty days. Chauffeurs must be not less than 18 years old, and must have licenses; other drivers must be not less than 16, if male, or 18 if female. Cars must have mufflers and devices to prevent their use when left unattended. The speed limits in cities, towns or villages are 10 miles an hour at street intersections and 15 miles an hour elsewhere. There is also a limit of 20 miles an hour in certain rural municipalities. Motors must stop when behind standing street cars.

**Saskatchewan.**—The licensing authority under the Vehicles Act, 1912, and amending Acts, is the Provincial Secretary. Licenses expire annually on December 31. Non-residents may use cars for 30 days, under permit from the Provincial Secretary, without registration in the province. No person under the age of 16 may drive a car, and paid chauffeurs must take out licenses. Cars must have mufflers. A car meeting a horse must not pass at a greater speed than 7 miles an hour, but there are no other speed limits. Motor vehicles must stop for street cars which are taking on or discharging passengers.

**Alberta.**—The law relating to motor vehicles is contained in the Motor Vehicle Act, 1911, and amending Acts, and the Highways Act, 1911. Cars must be registered in the office of the Provincial Secretary, who issues certificates which are renewable annually on January 1. A person not residing in the province may operate an unregistered car during not more than 20 days. Paid chauffeurs must be licensed, and all drivers must be not less than 16 years old, if male, or 18 years if female. Cars must be equipped with mufflers. The speed limits are, 20 miles an hour in cities, towns and villages, and 10 miles an hour at street crossings and bridges. A motor car may not pass a street car which has stopped for passengers to get on or off.

**British Columbia.**—Under the Motor Traffic Regulation Act, 1911, and amending Acts, cars are required to be registered with the Superintendent of Provincial Police. Licenses expire on December 31. Unregistered cars may be used for touring in the province under a touring license issued by the Superintendent of Provincial Police. Cars registered outside the province may be used for 60 days free. No person under the age of 17 may drive a car, and paid chauffeurs must take out licenses. Every car must have a lock or device to prevent its use when left unattended. The speed limits are, in cities, towns and villages 15 miles an hour, in wooded country 15 miles and in open country 25 miles an hour. A motor may not pass a standing street car at more than 4 miles an hour and must stop if it overtakes the car while taking on or discharging passengers.

**Yukon Territory.**—The Motor Vehicle Ordinance, No. 14, 1914, requires all cars to be registered in the office of the Territorial Secretary, who issues certificates, renewable annually on July 15. A non-resident may operate an unregistered motor for not more than 90 days. No male under 16 and no female under 18 years of age may drive a motor. In cities, towns and villages the speed limit is 15 miles an hour, or 10 miles an hour at street intersections.



## MOTOR VEHICLES.

26.—Number of Motor Vehicles registered in Canada by Provinces, 1914-16.

Province.	1914.	1915.	1916.
Prince Edward Island.....	31	34	50
Nova Scotia <sup>1</sup> .....	1,324	1,841	2,012
New Brunswick.....	1,328	1,900	2,965
Quebec.....	7,413	10,112	15,335
Ontario.....	31,724	42,346	54,375
Manitoba.....	7,359	9,225	12,765
Saskatchewan.....	8,020	10,225	15,900
Alberta.....	4,728	5,832	9,516
British Columbia.....	7,628	8,360	9,457
Yukon Territory.....	43	69	89
<b>Total.....</b>	<b>69,598</b>	<b>89,944</b>	<b>123,464</b>

<sup>1</sup> Number of permits in force on September 30 in each year.

27.—Speed Limits in miles per hour for Motor Vehicles by Provinces.

Province.	In cities, towns or villages.	At street inter- sections, bridges, etc.	Where closely built up.	Open country.	Wooded country or ob- structed view.
	miles per hour.	miles per hour.	miles per hour.	miles per hour.	miles per hour.
Prince Edward Island.....	7½	—	10	15	12
Nova Scotia.....	15	8	—	20	15
New Brunswick.....	12	—	15	—	20
Quebec.....	16	4	16	25	—
Ontario.....	15	—	—	20	—
Manitoba.....	15	10	20 <sup>1</sup>	—	—
Alberta.....	20	10	—	—	—
British Columbia.....	15	—	—	25	15
Yukon Territory.....	15	10	—	—	—

<sup>1</sup>Limit in certain specified rural municipalities.

## EXPRESS COMPANIES.

There are four distinctly Canadian express companies, viz., the Canadian Express Co., the Canadian Northern Express Co., the Dominion Express Co. and the British America Express Co. They are organized under powers conferred by Acts of the Dominion Parliament, and their business consists in the forwarding of parcels through the railway companies, in the transfer of luggage, and in the issue of money orders, travellers' cheques, letters of credit and other forms of financial paper. Four other express companies situated in the United States also do business in Canada. The total capital liability of the four



## TRANSPORTATION AND COMMUNICATIONS.

Canadian companies on June 30, 1916, stood at \$4,842,200. The total operating mileage of all eight express companies in Canada for the year ended June 30, 1916, was 41,994, as compared with 38,611 in 1915. The gross operating receipts were \$12,860,629, compared with \$11,311,797 in 1915, an increase of \$1,548,832. A deduction of \$6,146,399 for express privileges, that is, the amount paid to railways, steamboat and stage lines for the carrying of express matter, leaves \$6,714,230 as the operating revenue for the year. Operating expenses amounted to \$5,794,517, as compared with \$5,632,904 in 1915, and the net operating revenue to \$919,713, as compared with \$68,669 in 1915.

## 28.—Operating Mileage of Express Companies in Canada, 1913, 1914, 1915 and 1916.

	1913.	1914.	1915.	1916.
	Miles.	Miles.	Miles.	Miles.
<b>By routes over—</b>				
Steam Roads.....	29,476.62	33,551.13	35,572.73	38,538.91
Electric lines.....	212.61	212.61	254.41	338.70
Steamboat lines.....	2,743.50	2,770.00	2,706.00	3,055.00
Stage lines.....	122.00	112.00	75.00	59.00
Miscellaneous.....	2.75	2.75	2.75	2.75
<b>Totals.....</b>	<b>32,557.48</b>	<b>36,648.49</b>	<b>38,610.89</b>	<b>41,994.36</b>
<b>By Provinces—</b>				
Prince Edward Island.....	558.90	483.80	568.80	569.20
Nova Scotia.....	1,464.19	1,483.19	1,438.98	1,509.55
New Brunswick.....	2,103.28	2,086.08	2,043.86	2,015.26
Quebec.....	4,686.68	4,623.28	4,655.93	5,980.87
Ontario.....	10,333.56	11,080.05	10,519.90	11,135.74
Manitoba.....	3,598.71	3,936.51	4,161.01	4,321.46
Saskatchewan.....	4,174.36	5,597.26	5,845.96	5,993.30
Alberta.....	1,879.50	2,807.00	3,405.80	3,704.40
British Columbia.....	2,941.10	3,477.10	4,866.43	5,660.36
Yukon.....	692.70	692.70	692.70	692.70
Foreign.....	124.50	381.52	411.52	411.52
<b>Totals.....</b>	<b>32,557.48</b>	<b>36,648.49</b>	<b>38,610.89</b>	<b>41,994.36</b>
<b>By Companies—</b>				
American Express Co.....	1,175.09	1,127.99	1,290.29	1,224.14
British America Express Co.....	89.00	368.59	414.04	414.38
Canadian Express Co.....	6,926.51	9,419.51	10,249.13	12,049.93
Canadian Northern Express Co...	5,762.25	6,343.21	6,589.25	8,251.62
Dominion Express Co.....	16,765.73	17,168.77	18,421.43	18,493.81
Great Northern Express Co.....	672.76	672.76	710.39	624.12
United States Express Co.....	224.84	224.84	—	—
Wells Fargo & Co.....	941.30	941.30	936.36	936.36
<b>Totals.....</b>	<b>32,557.48</b>	<b>36,266.97<sup>1</sup></b>	<b>38,610.89</b>	<b>41,994.36</b>

NOTE.—In addition to the above mileage, outside operations in 1914 covered 16,811 miles, chiefly in connection with ocean-going steamers.

<sup>1</sup>The total unavoidably omits 381.52 miles, attaching to operations outside of Canada.

## EXPRESS COMPANIES.

## 29.—Operating Expenses of Express Companies, 1913-1916.

Companies.	Mainten- ance.	Traffic expenses.	Transporta- tion expenses.	General expenses.	Total operating expenses.
	\$	\$	\$	\$	\$
American Express <sup>1</sup> .....	6,478	1,788	205,191	15,497	228,954
British America Express...	—	326	1,225	1,410	2,961
Canadian Express.....	43,884	10,571	1,501,829	142,224	1,698,508
Canadian Northern Express	8,506	8,208	422,311	37,414	476,439
Dominion Express.....	135,265	52,675	2,867,113	286,490	3,341,543
Great Northern Express...	489	330	35,861	1,317	37,997
Wells Fargo Express.....	104	64	7,625	322	8,115
Total, 1916.....	194,726	73,962	5,041,155	484,674	5,794,517
Total, 1915.....	107,618	96,693	4,981,846	452,747	5,632,904
Total, 1914.....	144,881	182,164	5,399,602	519,985	6,246,632
Total, 1913.....	146,269	160,203	4,918,556	518,516	5,743,545

Companies.	Total privileges.	Taxes.	Total expenses.
	\$	\$	\$
American Express <sup>1</sup> .....	195,085	8,042	432,081
British America Express.....	6,940	—	9,901
Canadian Express.....	1,990,328	50,945	3,739,781
Canadian Northern Express.....	461,947	23,748	962,134
Dominion Express.....	3,438,261	60,943	6,840,747
Great Northern Express.....	46,003	1,618	85,618
Wells Fargo Express.....	7,835	998	16,948
Total, 1916.....	6,146,399	146,294	12,087,210
Total, 1915.....	5,610,224	123,029	11,366,157
Total, 1914.....	6,016,364	124,061	12,387,057
Total, 1913.....	5,708,408	103,138	11,555,091

<sup>1</sup>Including National Express Co.

## 30.—Business transacted by Express Companies in financial paper, 1913-1916.

Description.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
Money orders, domestic.....	49,773,324	49,670,865	42,516,429	43,385,566
Money orders, foreign.....	3,510,668	3,131,908	1,460,910	1,402,027
Travellers' cheques, domestic.....	1,771,905	1,666,630	1,405,110	514,170
Travellers' cheques, foreign.....	1,416,201	1,825,702	382,292	282,834
"C.O.D." cheques.....	7,309,889	8,011,832	7,642,035	9,330,731
Telegraphic transfers.....	286,853	370,969	202,991	215,444
Letters of credit issued.....	69,802	21,919	23,301	1,980
Other forms.....	905,551	1,197,514	656,668	1,368,099
Total.....	65,044,193	65,897,339	54,289,736	56,500,851

## TRANSPORTATION AND COMMUNICATIONS.

## 31.—Earnings of Express Companies, 1913-1916.

Companies.	Revenue from transportation.	Money Orders, domestic.	Money Orders, foreign.	Travel- lers' Cheques, domestic.	Travel- lers' Cheques, foreign.
	\$	\$	\$	\$	\$
American Express <sup>1</sup> .....	393,078	10,131	—	1,049	—
British America Express...	17,419	—	—	—	—
Canadian Express.....	3,882,748	63,551	—	918	—
Canadian Northern Express	1,155,211	15,695	—	—	—
Dominion Express.....	6,887,634	111,650	23,669	2,288	429
Great Northern Express...	76,884	727	1	—	—
Wells Fargo Express.....	15,671	701	—	260	—
<b>Total, 1916</b> .....	<b>12,428,645</b>	<b>202,458</b>	<b>23,670</b>	<b>4,515</b>	<b>429</b>
<b>Total, 1915</b> .....	<b>10,917,619</b>	<b>186,580</b>	<b>15,239</b>	<b>3,429</b>	<b>1,704</b>
<b>Total, 1914</b> .....	<b>12,210,260</b>	<b>207,605</b>	<b>20,650</b>	<b>190</b>	<b>9,203</b>
<b>Total, 1913</b> .....	<b>12,434,321</b>	<b>173,261</b>	<b>21,137</b>	<b>23,145</b>	<b>2,892</b>

Companies.	"C.O.D." Cheques.	Other earnings.	Total earnings.	Total expenses.	Net earnings.
	\$	\$	\$	\$	\$
American Express <sup>1</sup> .....	—	13,633	417,891	432,081	— 14,190
British America Express...	—	—	17,419	9,901	— 7,518
Canadian Express.....	32,659	24,496	4,004,375	3,739,781	264,594
Canadian Northern Express	18,323	—	1,189,228	962,134	227,094
Dominion Express.....	65,075	45,540	7,136,285	6,840,747	295,538
Great Northern Express...	298	443	78,354	85,618	— 7,264
Wells Fargo Express.....	425	20	17,077	16,948	129
<b>Total, 1916</b> .....	<b>116,780</b>	<b>84,132</b>	<b>12,874,902<sup>3</sup></b>	<b>12,087,210</b>	<b>787,692</b>
<b>Total, 1915</b> .....	<b>110,829</b>	<b>76,398</b>	<b>11,338,752<sup>4</sup></b>	<b>11,366,157</b>	<b>— 27,405</b>
<b>Total, 1914</b> .....	<b>114,791</b>	<b>83,751</b>	<b>12,671,681<sup>3</sup></b>	<b>12,387,057</b>	<b>284,624</b>
<b>Total, 1913</b> .....	<b>98,780</b>	<b>73,943</b>	<b>12,873,370<sup>2</sup></b>	<b>11,555,091</b>	<b>1,318,279</b>

<sup>1</sup>Including National Express Co.<sup>2</sup>Includes \$45,891 revenue from outside operations.<sup>3</sup>Includes \$25,229 revenue from outside operations.<sup>4</sup>Includes \$26,955 revenue from outside operations.<sup>5</sup>Includes \$14,273 revenue from outside operations.

## CANALS.

**Canal Systems.**—There are six canal systems under the control of the Dominion Government in connection with navigable lakes and rivers. They consist of the canals (1) between Port Arthur or Fort William and Montreal; (2) from Montreal to the international boundary near Lake Champlain; (3) from Montreal to Ottawa; (4) from Ottawa to Kingston and Perth; (5) Trenton, Lake Ontario, to Lake Huron (not completed); and (6) the St. Peter's canal from the Atlantic ocean to Bras d'Or Lakes, Cape Breton. The total length of the waterways comprised within these systems is about 1,594 statute miles, the actual mileage of canals constructed being 117.2.

**Canal Traffic.**—For the calendar year 1916 the total volume of traffic through the canals of the Dominion amounted to 23,583,491 tons, as compared with 15,198,803 tons in 1915, 37,023,237 tons in 1914 and 52,053,913 tons in 1913, the record year. The increase of 8,384,688 tons in 1916, as compared with 1915, is at the rate of 55 p.c., whilst in 1915 the decrease of 21,824,434 tons, as compared with 1914, was one of 58.9 p.c. This decrease was mainly due to a diversion of both Canadian and American traffic to the American canal at Sault Ste. Marie, owing to the availability on the American side of a new and larger lock. The total tonnage in 1916 was made up of 16,096,529 tons of American traffic, as compared with 8,409,380 tons in 1915, and of 7,486,962 tons of Canadian traffic, as compared with 6,789,423 tons in 1915. In 1916 the American traffic represented 68.3 p.c. of the total, as compared with 55.3 p.c. in 1915, and the Canadian traffic represented 31.7 p.c. of the total, as against 44.7 p.c. in 1915. The movement of Canadian grain by canal in 1916, following the excellent harvest of 1915, was the largest on record. Of Canadian wheat the total quantity moved through the canals of Canada and the United States at Sault Ste. Marie was 185,003,667 bushels, of which 82,807,342 bushels passed through the Canadian canal and 102,196,325 bushels passed through the American canal. In addition, 3,805,384 barrels of wheat flour representing, at  $4\frac{1}{2}$  barrels per bushel, 17,124,228 bushels of wheat passed through the canals; so that the total movement of Canadian wheat by canal in 1916 was 202,127,895 bushels. Of oats 57,743,636 bushels, of barley 8,679,607 bushels and of flaxseed 4,931,569 bushels passed through the Canadian and American canals at Sault Ste. Marie in 1916.

**Expenditure and Revenue for Canals.**—In Table 39 is given the annual expenditure and revenue for canals from the beginning up to the year 1916. The column of expenditure chargeable to capital includes all the items for canals specified, and also certain items which apply to the canals as a whole; but the other columns do not include certain sums which are mostly common to all the canals, as, for instance, in 1916, \$49,491 chargeable to income, \$103,445 for staff and \$36,507 for repairs. If these items be added, the total expenditure on the Dominion canals for the year ended March 31, 1916, was \$7,956,354, comprising \$6,142,149 charged to capital, \$447,156 charged to income,



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\$800,977 for staff and \$566,072 for repairs. The total capital expenditure on the canals up to March 31, 1916, was \$118,614,726, which, as shown in Table 38, includes a sum of \$34,967 chargeable to all as apart from any particular canals.

**Panama Canal.**—In the Year Book of 1914, page 680, particulars were given of the Panama Canal in connection with its formal opening to commercial traffic on August 15 of that year. In Tables 41 and 42, of this section are given statistics of the traffic through the canal from the date of opening to February, 1917. Table 41 shows that for the calendar year 1916 there passed through the canal from the Atlantic to the Pacific and from the Pacific to the Atlantic, a total of 4,931,911 long tons of cargo, as compared with 4,966,560 tons in 1915.

## 32.—Canal Traffic during the Navigation Season 1916.

Canals.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.	
	Up.	Down.	Up.	Down.	Up.	Down.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie.....	338,901	2,886,970	2,810	887,239	384,451	11,467,241
Welland.....	157,060	675,282	193,165	3,057	148,046	55,361
St. Lawrence.....	242,920	881,418	450,157	381	40	—
Chambly.....	4,169	10,504	242,508	—	—	—
St. Peter's.....	5,471	4,158	—	—	—	—
Murray.....	42,563	2,542	—	—	—	—
Ottawa.....	11,796	160,809	—	54,474	—	—
Rideau.....	58,488	40,165	—	—	—	—
Trent.....	17,767	27,242	—	—	—	—
St. Andrew's .....	12,913	525	—	—	—	—
<b>Total.....</b>	<b>892,048</b>	<b>4,689,615</b>	<b>888,640</b>	<b>945,151</b>	<b>532,540</b>	<b>11,522,602</b>

## CANALS.

## 32.—Canal Traffic during the Navigation Season 1916—concluded.

Canals.	From United States to Canadian Ports.		Total Freight.		Total.	Origin of Cargo.	
	Up.	Down.	Up.	Down.		Canadian	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie.....	704,378	141,656	1,430,543	15,383,106	16,813,649	4,155,911	12,657,738
Welland.....	1,350	1,311,643	499,621	2,045,343	2,544,964	1,054,480	1,490,484
St. Lawrence.....	5,405	1,787,743	698,522	2,669,542	3,368,064	1,581,195	1,786,869
Chambly.....	—	141,796	246,677	152,300	398,977	257,181	141,796
St. Peter's.....	—	—	5,471	4,158	9,629	9,629	—
Murray.....	—	1,575	42,563	4,117	46,680	45,085	1,595
Ottawa.....	10,572	—	22,368	215,283	237,651	226,381	11,270
Rideau.....	—	6,777	58,488	46,942	105,430	98,653	6,777
Trent.....	—	—	17,767	27,242	45,009	45,009	—
St. Andrew's.....	—	—	12,913	525	13,438	13,438	—
Total.....	721,705	3,391,190	3,034,933	20,548,558	23,583,491	7,486,962	16,096,529

## 33.—Distribution of Total Canal Traffic by Months, 1912-1916.

Months.	1912.	1913.	1914.	1915.	1916.
	Tons.	Tons.	Tons.	Tons.	Tons.
January.....	181	397	494	—	—
April.....	77,871	875,226	554,111	398,350	474,710
May.....	6,134,122	7,260,227	5,307,123	1,426,805	2,967,906
June.....	6,851,248	7,647,189	6,136,657	1,472,670	4,232,338
July.....	7,054,060	8,137,169	6,339,831	1,587,611	3,655,110
August.....	7,159,871	7,625,782	6,261,380	1,829,021	3,643,436
September.....	6,983,913	7,531,379	6,069,946	2,424,717	3,318,774
October.....	7,321,846	7,350,914	4,660,484	3,354,829	2,754,812
November.....	5,369,493	4,891,143	1,470,471	2,278,245	1,967,168
December.....	634,640	734,487	222,740	426,555	569,237
Total.....	47,587,245	52,053,913	37,023,237	15,198,803	23,583,491

## 34.—Distribution of Canal Traffic in Canada, 1916.

Canal System.	Tons.	Increase (+) or decrease (—)	Canal System.	Tons.	Increase (+) or decrease (—)
Sault Ste. Marie.....	16,813,649	+9,062,692	Murray.....	46,680	+15,952
Welland.....	2,544,964	—516,048	Ottawa.....	237,651	—34,719
St. Lawrence.....	3,368,064	—41,403	Rideau.....	105,430	—15,351
Chambly.....	398,977	—79,730	Trent.....	45,009	—4,895
St. Peter's.....	9,629	+6,734	St. Andrews....	13,438	—8,544

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## 35.—Tonnage of Traffic by Canals and Classes of Products, 1915-1916.

Canals.	Agricultural Products.	Animal Products.	Manufactures.	Forest Products.	Mine Products.	Total.
1915.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie....	2,655,789	655	441,293	89,218	4,564,002	7,750,957
Welland.....	1,306,803	1	320,442	308,660	1,125,106	3,061,012
St. Lawrence.....	1,204,523	4,685	276,713	601,255	1,322,291	3,409,467
Chambly.....	7,163	784	21,605	280,117	169,038	478,707
St. Peter's.....	381	10	322	179	2,003	2,895
Murray.....	153	271	6,523	—	23,781	30,728
Ottawa.....	4,202	2,889	16,089	155,669	93,521	272,370
Rideau.....	1,521	1,690	10,186	10,211	97,173	120,781
Trent.....	1,990	299	2,751	44,575	289	49,904
St. Andrew's.....	—	5	187	4,894	16,896	21,982
<b>Total.....</b>	<b>5,182,525</b>	<b>11,289</b>	<b>1,096,111</b>	<b>1,494,778</b>	<b>7,414,100</b>	<b>15,198,803</b>
1916.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie....	3,803,288	522	373,664	39,245	12,596,929	16,813,649
Welland.....	693,578	—	184,779	265,563	1,401,044	2,544,964
St. Lawrence.....	660,555	4,450	211,530	650,590	1,840,930	3,368,064
Chambly.....	10,134	210	19,679	242,654	126,300	398,977
St. Peter's.....	4,518	330	964	30	3,787	9,629
Murray.....	60	—	9,738	2	36,880	46,680
Ottawa.....	3,383	2,940	20,168	139,16	71,992	237,651
Rideau.....	523	2,533	10,754	9,912	81,65	105,430
Trent.....	2,766	298	2,770	38,841	328	45,009
St. Andrew's.....	—	—	214	2,868	10,356	13,438
<b>Total.....</b>	<b>5,178,806</b>	<b>11,342</b>	<b>834,266</b>	<b>1,388,873</b>	<b>16,170,204</b>	<b>23,583,491</b>

## 36.—Principal Articles carried through Canadian Canals during the Navigation Seasons 1915 and 1916.

Articles.	1915.	1916.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
Barley.....	161,590	266,439	104,849	—
Buckwheat.....	12	12	—	—
Corn.....	163,527	128,307	—	35,220
Oats.....	637,420	1,013,595	376,175	—
Rye.....	11,878	21,950	10,072	—
Flax.....	59,771	96,316	36,545	—
Peas.....	1,001	161	—	840
Wheat.....	3,807,722	3,279,121	—	528,601
Flour.....	310,385	341,579	31,194	—
Hay.....	9,874	15,285	5,411	—
Other mill products.....	8,988	8,366	—	622
Fruit and vegetables.....	8,878	4,505	—	4,373
Potatoes.....	1,479	3,170	1,691	—
Live stock.....	1,205	988	—	217
Poultry, game and fish.....	625	768	143	—
Dressed meats.....	79	185	106	—
Other packing house products.....	1,677	861	—	816
Hides and leather.....	26	576	550	—
Wool.....	183	139	—	44
All other animal products.....	7,494	7,825	331	—
Agricultural products.....	21,570	34,238	12,668	—

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## 36.—Principal Articles carried through Canadian Canals during the Navigation Seasons 1915 and 1916—concluded.

Articles.	1915.	1916.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
Cement, bricks and lime.....	34,996	29,331	—	5,665
Household goods and furniture.....	2,158	2,465	307	—
Iron, pig and bloom.....	30,918	12,943	—	17,975
Iron and steel, all other.....	174,641	72,395	—	102,246
Petroleum and other oils.....	134,877	147,510	12,633	—
Sugar.....	61,975	35,115	—	26,860
Salt.....	11,490	12,884	1,394	—
Wines, liquors and beer.....	6,241	4,846	—	1,395
Merchandise not enumerated.....	617,245	482,539	—	134,706
Pulpwood.....	910,774	862,363	—	48,411
Sawed lumber.....	487,709	485,784	—	1,925
Squared timber.....	37,844	4,643	—	33,201
Shingles.....	9,229	3,326	—	5,903
Other woods.....	49,222	32,757	—	16,465
Hard coal.....	780,629	702,304	—	78,325
Soft coal.....	1,988,531	3,388,421	1,399,890	—
Coke.....	324	—	—	324
Copper Ore.....	20,331	3,972	—	16,359
Iron ore.....	4,133,360	11,558,835	7,425,475	—
Other ore.....	29,518	7,048	—	22,470
Sand, etc.....	461,407	509,624	48,217	—
<b>Total.....</b>	<b>15,198,803</b>	<b>23,583,491</b>	<b>9,467,651</b>	<b>1,082,963</b>

## 37.—Traffic through the Canadian Sault Ste. Marie Canal during the Navigation Seasons 1897 to 1916.

Year	Canadian Vessels.		U. S. Vessels.		Total No.	Total Vessel Tonnage.	Tonnage of Freight.		
	No.	Vessel Tonnage	No.	Vessel Tonnage.			Canadian.	United States.	Total.
1897	1,909	405,546	2,359	3,391,936	4,268	3,797,482	337,146	4,609,917	4,947,063
1898	1,811	403,931	1,864	2,353,699	3,675	2,757,630	146,539	2,908,748	3,055,287
1899	2,000	558,552	1,769	2,389,457	3,769	2,948,009	299,975	2,706,689	3,006,664
1900	1,790	577,310	1,291	1,617,438	3,081	2,194,748	255,264	1,780,413	2,035,677
1901	2,796	775,151	1,408	1,674,597	4,204	2,449,748	494,613	2,325,781	2,820,394
1902	3,080	1,366,930	1,964	3,237,372	5,044	4,601,302	1,140,623	3,588,645	4,729,268
1903	2,711	1,615,939	1,640	3,146,807	4,351	4,762,746	1,362,820	4,149,048	5,511,868
1904	2,637	1,555,042	1,325	2,675,663	3,962	4,230,705	1,212,145	3,818,560	5,030,705
1905	3,970	1,803,288	1,692	3,734,349	5,662	5,537,637	1,304,355	4,169,051	5,473,406
1906	3,922	1,959,252	1,758	4,399,872	5,680	6,359,124	1,632,683	4,941,363	6,574,046
1907	3,217	2,154,688	3,132	9,961,281	6,349	12,115,969	1,957,334	13,630,831	15,588,165
1908	3,289	2,603,232	2,004	7,035,655	5,293	9,638,887	2,092,231	10,666,985	12,759,216
1909	2,597	2,988,936	3,734	14,850,738	6,331	17,839,674	3,366,495	24,494,750	27,861,245
1910	2,744	3,173,494	5,228	20,187,704	7,972	23,361,198	3,345,619	33,050,068	36,395,687
1911	2,713	3,108,880	4,068	16,252,340	6,781	19,361,220	3,177,581	27,774,128	30,951,709
1912	2,643	3,296,229	5,213	22,536,015	7,856	25,832,244	4,090,362	35,579,293	39,669,655
1913	3,279	3,793,434	5,006	22,181,007	8,285	25,974,441	4,954,734	37,744,590	42,699,324
1914	3,011	3,473,292	2,966	13,827,870	5,977	17,301,162	3,609,747	23,989,437	27,599,184
1915	3,000	3,041,003	1,331	5,443,812	4,331	8,484,815	2,561,734	5,189,223	7,750,957
1916	4,595	4,089,937	2,094	8,703,187	6,689	12,793,124	7,486,962	16,096,529	23,583,491



## TRANSPORTATION AND COMMUNICATIONS.

## 38.—Traffic through Canadian Canals during the Navigation Seasons of 1910, 1911, 1912, 1913, 1914, 1915 and 1916.

## SAULT STE. MARIE CANAL.

Year	Canadian Vessels.				United States Vessels.				Passen- gers.	Freight carried.
	Stea- mers.	Sail.	Total.	Vessel Tonnage.	Stea- mers.	Sail.	Total.	Vessel Tonnage.		
	No.	No.	No.	Tons.	No.	No.	No.	Tons.	No.	Tons.
1910	2,652	92	2,744	3,173,494	5,103	125	5,228	20,187,704	33,291	36,395,687
1911	2,493	220	2,713	3,108,880	4,000	68	4,068	16,252,340	39,044	30,951,704
1912	2,492	151	2,643	3,296,229	5,190	23	5,213	22,536,015	37,549	39,669,659
1913	3,003	276	3,279	3,793,434	4,996	10	5,006	22,181,007	36,872	42,699,325
1914	2,674	337	3,011	3,473,292	2,955	11	2,966	13,827,870	30,446	27,599,184
1915	2,742	258	3,000	3,041,003	1,327	4	1,331	5,443,812	25,047	7,750,957
1916	3,908	687	4,595	4,089,937	2,072	22	2,094	8,703,187	31,734	16,813,649

## WELLAND CANAL.

1910	1,316	536	1,852	1,461,499	646	46	692	687,018	1,655	2,326,290
1911	1,375	289	1,664	1,541,548	701	115	816	755,631	1,288	2,537,629
1912	1,613	333	1,946	1,814,965	867	92	959	864,535	1,317	2,851,915
1913	2,111	306	2,411	2,376,778	756	62	818	787,752	1,620	3,570,714
1914	2,592	310	2,902	2,878,483	735	55	790	757,212	25	3,860,969
1915	1,760	366	2,126	2,032,348	758	38	796	822,847	7	3,061,012
1916	1,658	434	2,092	1,794,722	786	61	847	718,897	-	2,544,964

## ST. LAWRENCE CANALS.

1910	4,251	4,583	8,834	2,910,395	772	620	1,392	482,144	120,732	2,760,752
1911	4,166	4,261	8,367	3,103,957	1,033	523	1,556	819,078	101,750	3,105,708
1912	4,382	4,819	9,201	3,496,502	1,164	641	1,805	846,333	106,492	3,477,188
1913	4,997	4,848	9,845	4,240,399	1,208	603	1,811	961,371	127,638	4,392,427
1914	5,304	3,678	8,982	4,505,235	854	409	1,263	776,490	106,618	4,391,493
1915	4,474	2,625	7,099	3,422,991	981	561	1,542	841,792	78,303	3,409,467
1916	4,258	2,389	6,647	3,129,072	1,194	484	1,678	1,016,367	81,623	3,368,064

## CHAMBLY CANAL.

1910	299	320	619	97,797	-	3,600	3,600	369,449	2,399	669,299
1911	208	289	497	51,451	2	3,509	3,511	367,978	2,708	599,829
1912	279	207	486	45,550	1	3,318	3,319	344,435	2,422	618,415
1913	290	182	472	62,140	-	2,725	2,725	273,671	2,507	555,602
1914	167	179	346	52,736	-	2,348	2,348	241,672	2,677	436,905
1915	308	180	488	58,998	1	2,300	2,301	235,193	2,640	478,707
1916	247	261	508	64,064	1	1,810	1,811	186,298	1,669	398,977

## ST. PETER'S CANAL.

1910	310	1,156	1,466	106,242	2	2	4	811	633	85,951
1911	269	991	1,260	89,270	-	-	-	-	709	75,298
1912	353	852	1,205	88,519	2	6	8	626	1,240	74,809
1913	382	942	1,324	94,890	6	7	13	1,048	1,582	71,514
1914	451	741	1,192	80,252	1	7	8	41	351	54,180
1915	37	34	71	5,650	-	-	-	-	8	2,895
1916	30	103	133	9,201	-	-	-	-	6	9,629

## CANALS.

38.—Traffic through Canadian Canals during the Navigation Seasons of 1910, 1911, 1912, 1913, 1914, 1915 and 1916—concluded.

## MURRAY CANAL.

Year	Canadian Vessels.				United States Vessels.				Passen- gers.	Freight carried.
	Stea- mers.	Sail.	Total.	Vessel Tonnage.	Stea- mers.	Sail.	Total.	Vessel Tonnage.		
	No.	No.	No.	Tons.	No.	No.	No.	Tons.		
1910	845	395	1,240	378,037	47	21	68	1,413	33,782	177,941
1911	940	416	1,356	368,189	69	15	84	3,021	26,187	163,457
1912	834	176	1,010	386,302	65	10	75	2,761	20,679	170,081
1913	887	337	1,224	395,494	51	2	53	2,133	20,210	180,576
1914	656	258	914	210,747	47	10	57	2,889	15,893	83,907
1915	478	74	552	124,506	48	-	48	1,407	12,223	30,728
1916	514	135	649	108,260	30	-	30	1,025	4,868	46,680

## OTTAWA CANAL.

1910	972	1,217	2,189	410,907	6	406	412	41,963	26,485	385,261
1911	981	1,128	2,109	377,925	-	304	304	30,536	25,497	320,071
1912	1,007	1,655	2,662	480,751	-	397	397	40,598	27,271	392,350
1913	1,007	1,640	2,647	497,649	-	291	291	29,718	24,759	365,438
1914	930	1,267	2,197	392,516	-	275	275	27,257	23,835	335,132
1915	788	861	1,649	297,434	-	391	391	39,464	27,258	272,370
1916	782	877	1,659	302,012	-	328	328	33,851	22,812	237,651

## RIDEAU CANAL.

1910	2,105	644	2,749	176,447	2	64	66	6,795	26,040	134,881
1911	2,361	670	3,031	222,562	1	30	31	3,038	25,298	172,227
1912	2,257	703	2,960	208,689	-	9	9	887	20,534	160,133
1913	2,185	613	2,798	200,898	-	22	22	2,088	19,653	171,223
1914	2,208	392	2,600	176,904	22	13	35	2,611	19,730	151,739
1915	1,817	253	2,070	144,787	-	6	6	586	18,664	120,781
1916	1,512	160	1,672	117,341	-	12	12	1,214	12,544	105,430

## TRENT CANAL.

1910	2,794	648	3,442	172,085	-	-	-	-	69,186	46,263
1911	3,088	1,077	4,165	196,973	-	-	-	-	77,078	57,290
1912	3,227	771	3,998	208,855	-	-	-	-	73,861	77,150
1913	3,021	645	3,666	217,081	-	-	-	-	99,162	55,800
1914	2,915	732	3,647	174,647	-	-	-	-	85,218	67,715
1915	2,855	578	3,433	172,780	-	-	-	-	82,391	49,904
1916	3,011	484	3,495	165,486	-	-	-	-	104,736	45,009

## ST. ANDREW'S CANAL.

1910	180	22	202	44,887	-	-	-	-	6,398	8,283
1911	341	82	423	111,437	-	-	-	-	5,345	47,135
1912	743	517	1,260	210,973	-	-	-	-	902	95,549
1913	616	372	988	199,278	-	-	-	-	1,796	81,295
1914	197	137	334	106,044	-	-	-	-	2,533	42,013
1915	664	423	1,087	97,710	-	-	-	-	4,295	21,982
1916	302	250	552	58,934	-	-	-	-	3,656	13,438

## SUMMARY.

1910	15,724	9,613	25,337	8,931,790	6,578	4,884	11,462	21,777,297	320,574	42,990,608
1911	16,162	9,423	25,585	9,172,192	5,806	4,564	10,370	18,231,622	304,904	38,030,353
1912	17,187	10,184	27,371	10,237,335	7,289	4,496	11,785	24,636,190	292,267	47,587,245
1913	18,499	10,155	28,654	12,078,041	7,017	3,722	10,739	24,238,788	335,799	52,053,913
1914	18,094	8,031	26,125	12,050,856	4,614	3,128	7,742	15,636,414	287,326	37,023,237
1915	15,923	5,652	21,575	9,398,207	3,115	3,300	6,415	7,385,101	250,830	15,198,803
1916	16,222	5,780	22,002	9,839,024	4,083	2,717	6,800	10,660,839	263,648	23,583,191

## TRANSPORTATION AND COMMUNICATIONS.

## 39.—Total Expenditure and Revenue of Canals 1868-1916 and before Confederation.

Fiscal Year.	Expenditure Chargeable—					Revenue of Canals.
	To Capital.	To Income.	To Revenue.	For Staff.	For Repairs.	
Before Confed- eration.....	\$	\$	\$	\$	\$	\$
1868.....	20,593,866	98,378	—	—	—	—
1869.....	33,784	95,348	12,000	113,084	101,646	403,879
1870.....	126,898	55	12,000	116,070	118,579	400,263
1871.....	—	90,356	18,699	120,403	150,177	414,687
1872.....	—	116,430	12,019	135,041	140,468	488,539
1873.....	255,646	33,289	12,209	124,137	152,086	466,848
1874.....	256,547	127,370	12,099	148,581	186,573	486,433
1875.....	1,189,592	51,037	12,959	167,194	213,614	510,756
1876.....	1,714,830	479	12,047	168,401	203,227	414,980
1877.....	2,388,733	811	86	178,412	190,578	390,337
1878.....	4,131,374	22	52	179,661	138,449	390,857
1879.....	3,843,339	1,860	556	187,521	122,252	373,814
1880.....	3,064,099	—	—	191,892	115,350	337,675
1881.....	2,123,366	2,562	323	195,039	147,168	341,598
1882.....	2,075,892	9,585	5,535	197,574	154,654	361,558
1883.....	1,593,174	55,025	9,826	224,573	187,399	325,232
1884.....	1,763,002	74,284	6,979	269,415	178,618	361,604
1885.....	1,577,295	68,481	8,305	280,657	192,219	372,562
1886.....	1,504,622	75,023	1,211	280,226	201,708	321,289
1887.....	1,333,325	52,308	776	282,324	198,252	328,977
1888.....	1,783,698	89,495	649	285,173	198,889	321,785
1889.....	1,033,118	155,095	5,800	292,459	201,929	317,902
1890.....	972,919	172,107	5,208	301,040	240,261	333,189
1891.....	1,026,364	163,281	49,550	290,517	176,089	354,817
1892.....	1,318,092	182,769	56,922	294,562	204,768	349,432
1893.....	1,437,149	200,671	65,074	293,116	231,090	324,475
1894.....	2,069,573	204,684	63,966	291,049	204,759	357,090
1895.....	3,027,164	113,395	60,265	294,446	179,630	387,789
1896.....	2,452,274	220,190	60,770	281,477	164,034	339,891
1897.....	2,258,779	96,713	70,340	292,121	209,322	339,539
1898.....	2,348,637	104,143	62,777	287,970	178,385	384,781
1899.....	3,207,250	84,120	56,284	280,872	203,479	407,653
1900.....	3,899,877	83,525	66,850	280,629	202,312	369,044
1901.....	2,639,565	132,527	58,837	292,609	227,627	322,643
1902.....	2,360,570	147,768	61,939	314,095	262,876	315,426
1903.....	2,114,690	216,703	65,771	317,839	263,768	300,414
1904.....	1,823,274	277,596	63,175	390,282	294,114	230,213
1905.....	1,880,787	302,409	66,067	381,017	350,279	79,537
1906.....	2,071,594	354,353	64,515	431,500	401,743	78,009
1907 (9 months).....	1,552,121	319,877	62,172	447,963	375,889	108,068
1908.....	887,839	264,111	66,251	329,630	287,231	105,003
1909.....	1,723,156	508,010	105,519	473,639	411,661	144,882
1910.....	1,873,869	728,125	106,066	475,515	433,958	199,501
1911.....	1,650,707	489,256	111,756	515,585	491,793	193,384
1912.....	2,349,474	440,270	103,398	511,306	471,530	221,138
1913.....	2,560,939	442,012	110,049	585,900	555,710	264,114
1914.....	2,259,257	331,987	121,371	605,248	535,136	307,568
1915.....	2,829,661	389,285	147,729	642,845	574,039	380,188
1916.....	5,490,796	444,730	140,236	675,771	562,599	427,763
Totals.....	118,614,726	9,009,575	2,356,939	15,413,912	12,717,482	16,203,848

## CANALS.

## 40.—Capital Expenditure for Construction and Enlargement of Canals 1868-1916 and before Confederation.

Canals.	Cost of Construc- tion.	Cost of Enlarge- ment.	Total Cost.
	\$	\$	\$
Beauharnois.....	1,636,690	—	1,636,690
Carillon and Grenville <sup>1</sup> .....	63,054	4,119,039	4,182,093
Chambly.....	637,057	94,640	731,697
Cornwall.....	1,945,625	5,300,679	7,246,304
Culbute.....	382,391	—	382,391
Lachine.....	2,589,533	11,519,079	14,108,612
Lake St. Francis.....	—	75,907	75,907
Lake St. Louis.....	—	298,176	298,176
Murray.....	1,248,947	—	1,248,947
Rideau.....	4,084,323	83,746	4,168,069
Sault Ste. Marie.....	4,994,372	—	4,994,372
Soulanges.....	7,904,044	—	7,904,044
Ste. Anne.....	134,457	1,035,759	1,170,216
St. Lawrence River and Canals.....	18,443	3,451,470	3,469,913
St. Peters.....	648,547	—	648,547
St. Ours.....	121,538	5,691	127,229
Tay.....	489,599	—	489,599
Trent.....	15,626,295	—	15,626,295
Welland.....	7,693,824	21,925,172	29,618,996
Welland Ship Canal.....	9,960,563	—	9,960,563
{ Farrans Point.....	—	877,091	877,091
Williamsburg { Galops.....	—	6,121,214	6,121,214
{ Rapide Plat.....	—	2,158,242	2,158,242
{ Williamsburg.....	1,320,656	13,896	1,334,552
Canals in general.....	—	—	34,967
<b>Totals.....</b>	<b>61,499,958</b>	<b>57,079,801</b>	<b>118,614,726</b>

<sup>1</sup> The records relating to cost of construction by Imperial Government were destroyed by fire in 1852, and the statistics are not included in this table.



## TRANSPORTATION AND COMMUNICATIONS.

41.—Traffic through the Panama Canal, August 1914 to February 1917.  
From the Panama Canal Record. (Ton=2,240 lb.)

Month and Year.	Atlantic to Pacific.				Pacific to Atlantic.				Total.			
	Vessels.	Canal Tonnage.		Cargo, Tons.	Vessels.	Canal Tonnage.		Cargo, Tons.	Vessels.	Canal Tonnage.		Cargo, Tons.
		Gross.	Net.			Gross.	Net.			Gross.	Net.	
1914												
August.....	13	58,233	41,431	49,106	11	62,049	44,047	62,178	24	120,282	85,978	111,284
September.....	27	151,878	109,684	141,762	30	151,568	111,375	180,276	57	303,446	221,059	322,038
October.....	44	240,925	174,472	168,039	40	220,179	153,744	253,288	84	461,104	328,216	421,357
November.....	54	247,479	172,825	206,510	38	205,071	149,906	242,291	92	452,550	322,731	448,801
December.....	43	204,776	148,676	179,235	57	280,896	198,618	271,219	100	485,672	347,294	450,454
Total.....	181	903,291	647,588	744,682	176	919,763	657,690	1,009,252	357	1,823,054	1,305,278	1,753,924
1915												
January.....	44	239,486	169,228	208,082	54	251,085	177,984	240,925	98	490,571	347,212	449,007
February.....	38	209,822	149,339	150,987	53	245,522	175,523	276,078	91	455,344	324,862	427,065
March.....	57	269,901	187,568	217,447	80	405,380	288,416	417,610	137	675,281	475,984	635,057
April.....	59	279,139	199,213	237,384	60	290,738	205,326	285,457	119	563,877	404,539	522,841
May.....	67	343,701	240,098	246,534	75	360,104	252,252	332,174	142	703,895	492,350	578,708
June.....	83	412,525	296,634	320,619	60	286,330	201,116	282,561	143	698,855	497,810	603,180
July.....	93	465,726	297,329	316,773	77	356,145	250,041	388,696	170	821,871	547,370	705,469
August.....	89	446,463	288,194	249,119	72	353,298	236,857	326,218	161	709,761	525,051	575,337
September.....	49	255,397	166,751	181,380	51	254,064	178,619	274,937	100	489,461	345,370	456,317
October.....	-	-	-	-	-	-	-	-	-	-	-	-
November.....	-	-	-	-	-	-	-	-	-	-	-	-
December.....	3	1,518	851	671	6	12,446	8,957	12,908	9	13,994	9,808	13,579
Total.....	582	2,873,708	1,995,265	2,128,996	588	2,815,112	1,975,091	2,837,564	1,170	5,688,820	3,970,356	4,966,560

## CANALS.

## 41.—Traffic through the Panama Canal, August 1914 to February 1917—concluded.

From the Panama Canal Record. (Ton=2,240 lb.)

Month and Year.	Atlantic to Pacific.				Pacific to Atlantic.				Total.			
	Vessels.	Canal Tonnage.		Cargo, Tons.	Vessels.	Canal Tonnage.		Cargo, Tons.	Vessels.	Canal Tonnage.		Cargo, Tons.
		Gross.	Net.			Gross.	Net.			Gross.	Net.	
1916												
January.....	-	-	-	-	2	814	600	550	2	814	600	550
February.....	4	694	694	1,100	1	2,685	1,700	-	5	3,379	2,494	1,100
March.....	2	387	203	-	5	18,407	11,005	7,000	7	18,794	11,808	7,000
April.....	32	142,642	102,378	144,133	48	197,193	140,306	224,020	80	339,835	242,654	368,753
May.....	69	311,881	215,473	248,289	60	257,157	179,070	245,361	129	569,038	394,543	494,150
June.....	70	338,108	236,358	292,771	54	231,474	163,636	225,020	124	569,582	400,044	517,791
July.....	76	369,678	200,521	296,094	73	319,339	228,437	352,863	149	689,017	488,958	648,957
August.....	77	372,042	261,638	246,149	65	295,032	203,340	270,672	142	667,074	461,978	516,821
September.....	69	316,315	219,398	224,661	85	412,175	294,580	437,569	154	728,990	513,978	662,170
October.....	74	317,826	221,610	231,016	84	377,457	272,164	416,877	158	695,283	493,774	647,893
November.....	72	314,179	220,806	198,718	76	303,517	215,398	320,325	148	617,696	436,204	510,043
December.....	82	362,154	261,181	241,957	73	313,005	222,633	305,696	155	675,159	483,814	547,683
Total.....	627	2,846,406	2,000,260	2,124,918	626	2,728,255	1,933,609	2,806,993	1,253	5,574,661	3,933,869	4,831,911
1917												
January.....	78	368,253	258,317	246,139	98	406,554	303,131	425,254	176	774,807	561,448	671,393
February.....	68	324,918	226,217	244,207	72	361,947	251,356	313,462	140	686,865	477,603	557,769
Total.....	146	693,171	484,564	490,446	170	768,501	554,487	738,716	316	1,461,672	1,039,051	1,229,162
Grand Total.....	1,536	7,316,576	5,127,767	5,489,042	1,560	7,231,631	5,120,877	7,392,525	3,096	14,548,207	10,248,554	12,881,567

## TRANSPORTATION AND COMMUNICATIONS.

42.—Traffic through the Panama Canal by Nationality of Vessels for the fiscal years ended June 30, 1915 and 1916.

From the Panama Canal Record. (Ton=2,240 lb.)

Nationality.	1915 <sup>1</sup>						1916.					
	Atlantic to Pacific.			Pacific to Atlantic.			Atlantic to Pacific.			Pacific to Atlantic.		
	Num- ber.	Net Canal Tonnage.	Cargo. Tons.	Num- ber.	Net Canal Tonnage.	Cargo Tons.	Num- ber.	Net Canal Tonnage.	Cargo Tons.	Num- ber.	Net Canal Tonnage.	Cargo Tons.
British.....	226	795,153	896,379	239	838,036	1,306,092	193	654,514	758,202	165	500,899	790,258
United States.....	231	866,121	1,037,854	239	880,967	1,224,209	114	338,022	380,763	124	399,147	513,355
Norwegian.....	16	58,801	48,866	26	72,035	121,706	19	74,280	41,320	26	103,078	196,835
Japanese.....	4	16,999	30,154	2	7,958	14,000	19	68,421	101,472	5	13,397	19,915
Chilean.....	16	40,178	17,104	19	53,610	39,493	16	45,228	26,873	17	46,014	31,442
Peruvian.....	2	3,662	1,000	2	5,756	6,202	16	38,671	24,365	14	35,758	38,251
Dutch.....	5	15,173	17,182	2	5,902	8,846	11	25,278	35,259	4	14,364	25,565
Danish.....	10	39,949	34,520	13	49,781	80,357	10	41,566	57,959	8	26,430	44,865
Swedish.....	8	19,970	10,176	10	34,057	36,352	5	16,134	8,023	8	25,299	38,828
Panaman.....	—	—	—	2	71	—	5	551	—	1	212	—
Italian.....	1	2,079	900	1	2,079	—	1	3,861	—	—	—	—
Russian.....	5	18,539	22,431	1	3,861	—	1	1,475	—	—	—	—
Honduran.....	2	72	—	1	50	—	1	229	—	2	255	290
Nicaraguan.....	1	46	6	—	—	—	—	—	—	—	—	—
Argentine.....	—	—	—	—	—	—	—	—	—	—	—	—
French.....	2	6,556	9,163	1	4,147	6,800	—	—	—	1	2,335	—
Canadian.....	1	1,430	—	—	—	—	—	—	—	1	4,343	6,176
Total.....	530	1,884,728	2,125,735	558	1,958,310	2,844,057	411	1,308,230	1,434,236	376	1,171,531	1,705,810

<sup>1</sup> Eleven Months.

## SHIPPING.

Administration of the general shipping interests of Canada is divided between the Marine Department and the Department of the Naval Service.<sup>1</sup> The Marine Department includes the control, regulation, management and supervision of various services, chief amongst which are (1) administration of the Canada Shipping Act and other Acts of the Dominion Government relating to marine transportation; (2) pilotage; (3) the construction and maintenance of lighthouses, lightships, fog alarms, buoys and beacons; (4) ports, harbours, piers, wharves and breakwaters; (5) the Meteorological Service of Canada; (6) sick and distressed seamen, and the establishment, regulation and management of marine and seamen's hospitals; (7) river and harbour police; (8) inquiries into the causes of shipwrecks and casualties and the collection of wreck statistics; (9) the inspection of steamboats; (10) the construction and maintenance of the St. Lawrence River Ship Canal, and (11) the maintenance of winter communication between Prince Edward Island and the mainland. The net revenue of the Marine Department for the fiscal year ended March 31, 1916, derived principally from fees, was \$461,457, and the expenditure for the same period was \$5,621,611.

Of the following statements, Tables 43-50 are compiled from the Reports of the Department of Customs, and Tables 51 to 58 are from the Reports of the Department of Marine.

<sup>1</sup>For information relating to the Department of the Naval Service, see page 647.

43.—Sea-going Vessels (exclusive of Coasting Vessels) Entered and Cleared at Canadian Ports during the fiscal year 1916.

Nationalities.	Num-ber of Vessels.	Tons Register.	Freight.		Number of Men.
			Weight.	Tons Measure-ment.	
ENTERED.					
British.....	3,564	6,506,118	772,949	259,529	184,360
Canadian.....	6,104	1,909,633	345,020	3,266	94,180
Foreign.....	9,478	4,201,176	1,681,994	106,690	163,661
Total.....	19,146	12,616,927	2,799,963	369,485	442,201
CLEARED.					
British.....	3,253	5,911,826	4,096,798	1,341,439	164,783
Canadian.....	6,282	1,985,098	912,637	131,678	97,357
Foreign.....	9,081	4,313,799	1,655,411	882,839	165,937
Total.....	18,616	12,210,723	6,664,846	2,355,956	428,077
TOTAL ENTERED AND CLEARED.					
British.....	6,817	12,417,944	4,869,747	1,600,968	349,143
Canadian.....	12,386	3,894,731	1,257,657	134,944	191,537
Foreign.....	18,559	8,514,975	3,337,405	989,529	329,598
Total.....	37,762	24,827,650	9,464,809	2,725,441	870,278



## TRANSPORTATION AND COMMUNICATIONS.

## 44.—Sea-going Vessels Entered and Cleared at the Principal Ports of Canada, 1916.

Ports.	British.		Foreign.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Anyox, B.C. ....	147	63,608	165	148,020	312	211,628
Arichat, N.S. ....	155	3,960	60	5,088	215	9,048
Baddeck, N.S. ....	160	8,579	58	27,235	216	35,814
Bathurst, N.B. ....	6	2,236	27	18,914	33	21,150
Bridgewater, N.S. ....	60	12,797	100	46,868	160	59,665
Campbellton, N.B. ....	8	3,347	65	68,244	73	71,591
Campo Bello, N.B. ....	367	51,726	538	12,696	905	64,422
Canso, N.S. ....	336	44,750	607	40,815	913	85,565
Charlottetown, P.E.I. ....	109	67,016	22	21,642	131	88,658
Chatham, N.B. ....	73	83,241	158	78,450	231	161,691
Chemainus, B.C. ....	33	4,071	104	15,065	137	19,136
Chicoutimi, Que. ....	40	66,118	4	6,515	44	72,633
Dalhousie, N.B. ....	11	10,561	75	59,884	86	70,445
Gaspe, Que. ....	33	24,821	58	38,225	91	63,046
Halifax, N.S. ....	1,508	1,874,900	591	431,207	2,099	2,306,107
Hillsboro, N.B. ....	43	35,877	31	18,473	74	54,350
Ladysmith, B.C. ....	167	28,387	267	108,647	434	137,034
La Have, N.S. ....	211	18,367	12	2,243	223	20,610
Liverpool, N.S. ....	82	20,896	482	32,619	564	53,515
Lockport, N.S. ....	126	7,172	160	8,758	286	15,930
Lord's Cove, N.B. ....	629	28,733	344	3,860	973	32,593
Louisburg, N.S. ....	411	420,186	848	353,018	1,259	773,204
Lower East Pubnico, N.S. ...	88	5,487	81	4,787	169	10,274
Lunenburg, N.S. ....	645	54,055	61	4,569	706	58,624
Moncton, N.B. ....	22	4,557	38	40,626	60	45,183
Montreal, Que. ....	916	3,205,798	40	70,214	956	3,276,012
Nanaimo, B.C. ....	300	88,429	988	535,841	1,288	624,270
Newcastle, N.B. ....	12	13,916	92	40,241	104	54,157
Newport, B.C. ....	77	21,082	125	24,592	202	45,674
New Westminster, B.C. ....	47	15,107	32	6,302	79	21,409
North Head, N.B. ....	383	53,401	40	1,241	423	54,642
North Sydney, N.S. ....	1,342	498,596	371	209,645	1,713	708,241
Parrsboro, N.S. ....	159	41,190	124	62,546	283	103,736
Paspebiac, Que. ....	12	4,927	36	26,428	48	41,355
Pictou, N.S. ....	18	18,847	61	69,050	79	87,897
Powell River, B.C. ....	31	50,951	205	101,466	236	152,417
Port Hawkesbury, N.S. ....	124	47,225	92	12,579	216	59,804
Port Simpson, B.C. ....	23	28,315	60	2,178	83	30,493
Prince Rupert, B.C. ....	718	273,194	1,257	274,192	1,975	547,386
Quebec, Que. ....	240	788,288	39	101,591	279	889,879
Rimouski, Que. ....	101	329,332	13	16,709	114	346,041
St. Andrews, N.B. ....	624	42,931	1,923	105,174	2,547	148,105
St. George, N.B. ....	7	124	253	20,294	260	20,418
St. John, N.B. ....	848	1,385,160	1,313	951,454	2,161	2,336,614
St. Martins, N.B. ....	53	21,795	74	14,008	127	35,803
St. Stephens, N.B. ....	375	40,105	220	12,334	595	52,439
Sandy Point, N.S. ....	36	3,196	455	40,623	491	43,819
Shelburne, N.S. ....	69	9,838	160	13,575	229	23,413
Steveston, B.C. ....	189	11,355	474	15,204	663	26,559
Sydney, N.S. ....	745	956,971	295	621,078	1,040	1,578,049
Three Rivers, Que. ....	46	109,792	4	5,442	50	115,234
Union Bay, B.C. ....	100	253,359	128	96,842	228	350,201
Vancouver, B.C. ....	1,772	2,359,558	1,202	1,122,203	2,974	3,481,761
Victoria, B.C. ....	1,721	2,115,441	1,578	2,053,467	3,299	4,168,908
Windsor, N.S. ....	143	136,599	165	126,855	308	263,454
Yarmouth, N.S. ....	573	305,451	260	17,237	833	322,688

## SHIPPING.

## 45.—Sea-going Vessels Entered Inwards and Outwards by Countries, 1916.

## VESSELS ENTERED INWARDS.

Countries whence arrived.	British.			Canadian.			Foreign.		
	No. of Ves- sels.	Tons Register.	Crew No.	No. of Ves- sels.	Tons Register.	Crew No.	No. of Ves- sels.	Tons Register.	Crew No.
Great Britain...	966	3,460,456	75,986	208	71,613	1,682	317	327,343	5,250
Australia...	39	192,920	5,732	—	—	—	2	3,073	38
British S. Africa...	1	2,752	32	—	—	—	5	4,692	74
British W. Indies...	81	173,334	5,371	59	8,651	424	23	19,002	477
Newfound-land....	767	296,762	14,486	282	86,390	3,702	110	248,937	2,932
Other Brit- ish pos- sessions..	24	68,222	1,073	1	269	7	5	8,000	121
Chile.....	7	17,514	258	—	—	—	3	5,226	89
China.....	23	116,299	3,231	—	—	—	33	125,285	2,642
France....	101	348,652	5,488	1	1,327	20	54	73,390	1,657
Denmark..	—	—	—	—	—	—	55	41,633	700
Holland...	1	2,902	37	—	—	—	18	41,520	547
Italy.....	12	23,597	310	—	—	—	13	19,664	261
Japan.....	21	90,671	2,504	—	—	—	66	221,196	5,242
Norway...	—	—	—	—	—	—	42	45,590	684
Peru.....	5	14,740	175	—	—	—	7	23,683	244
St. Pierre..	12	1,883	126	24	2,361	129	62	12,643	1,510
Russia.....	—	—	—	—	—	—	9	33,387	861
Spain.....	8	13,329	195	24	2,852	160	30	10,280	266
United States...	1,064	1,573,067	61,892	3,981	1,658,642	70,236	6,619	2,775,032	111,845
Sea Fisheries.	393	29,924	5,381	1,517	75,604	17,751	1,923	100,015	26,140
Mexico....	3	13,139	128	—	—	—	2	2,066	46
Other countries.	19	47,437	661	6	583	39	60	42,634	862
Sea.....	17	18,518	1,294	1	1,341	30	20	16,885	1,173
<b>Total....</b>	<b>3,564</b>	<b>6,506,118</b>	<b>184,360</b>	<b>6,104</b>	<b>1,909,633</b>	<b>94,180</b>	<b>9,478</b>	<b>4,201,176</b>	<b>163,661</b>

## VESSELS ENTERED OUTWARDS.

Countries to which departed.									
Great Britain...	708	2,343,430	54,300	198	54,439	1,317	538	481,681	8,193
Australia...	59	267,055	6,895	—	—	—	7	11,187	169
British Oceania..	3	7,381	96	—	—	—	2	3,264	52
British S. Africa....	26	72,940	1,061	—	—	—	6	11,559	118
British W. Indies...	11	1,888	70	33	4,946	243	22	18,538	477
Newfound-land....	823	333,799	15,784	349	103,243	4,266	127	242,428	3,016
British Guiana...	27	73,846	2,471	1	145	6	—	—	—
Other Brit- ish Pos- sessions..	9	26,275	379	—	—	—	1	512	10

## TRANSPORTATION AND COMMUNICATIONS.

## 45.—Sea-going Vessels Entered Inwards and Outwards by Countries, 1916—concluded.

## VESSELS ENTERED OUTWARDS—concluded.

Countries to which departed—concluded.	British.			Canadian.			Foreign.		
	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register.	Crew No.
Argentina.	1	503	8	—	—	—	17	25,207	298
Brazil.....	5	1,524	35	1	256	8	5	6,465	83
China.....	26	126,018	4,383	—	—	—	30	119,727	2,518
Cuba.....	10	5,384	121	9	2,500	57	18	9,210	199
France.....	187	593,783	9,974	16	16,787	306	53	74,060	1,525
Italy.....	22	52,989	516	—	—	—	6	18,205	276
Japan.....	2	5,612	73	—	—	—	53	194,162	4,731
St. Pierre.	16	1,173	75	31	2,969	174	69	14,894	1,518
Porto Rico	—	—	—	21	2,547	123	—	—	—
United States...	927	1,433,236	52,063	3,722	1,700,586	70,142	5,840	2,821,355	108,326
Sea fisheries.	228	29,286	4,868	1,891	86,741	20,522	2,211	122,681	31,378
Russia.....	12	31,260	497	3	6,423	119	50	115,991	1,977
Other countries	28	102,677	1,667	6	745	40	11	10,338	172
Sea, Cable and Admiralty..	123	401,767	9,447	1	2,771	34	15	12,335	901
<b>Total..</b>	<b>3,253</b>	<b>5,911,826</b>	<b>164,783</b>	<b>6,282</b>	<b>1,985,098</b>	<b>97,357</b>	<b>9,081</b>	<b>4,313,799</b>	<b>165,937</b>

## 46.—Sea-going Vessels Entered and Cleared at Canadian Ports with Cargo and in Ballast, 1902-1916.

Fiscal Years.	British.		Canadian.		Foreign.		Total Tonnage.
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	
1902.....	4,363	6,865,924	11,413	1,937,227	14,530	5,928,337	14,731,488
1903.....	4,647	7,753,788	11,282	2,085,568	12,403	6,001,819	15,841,175
1904.....	4,997	8,045,817	11,045	1,979,803	14,002	5,801,085	15,826,705
1905.....	4,614	8,034,652	11,279	2,269,834	11,904	5,283,969	15,588,455
1906.....	5,104	9,059,435	12,201	2,304,942	12,511	5,479,034	16,843,429
1907 (9 mos.)....	4,488	7,576,721	7,880	1,899,141	8,107	4,429,012	13,904,874
1908.....	6,356	10,329,515	10,562	2,606,660	12,886	6,555,096	19,491,271
1909.....	5,795	10,405,370	10,946	2,806,278	13,441	6,554,228	19,765,876
1910.....	5,780	11,038,709	10,875	3,498,361	13,147	6,267,243	20,804,313
1911.....	6,870	12,712,337	10,607	3,341,998	12,467	6,242,851	22,297,186
1912.....	6,766	13,342,929	10,966	4,618,163	15,134	6,628,513	24,589,605
1913.....	7,307	13,896,353	11,810	4,530,835	16,549	7,803,910	26,231,098
1914.....	7,418	15,711,849	12,786	5,160,799	15,811	8,695,838	29,568,486
1915.....	6,949	13,931,091	11,903	4,005,011	15,060	7,466,484	25,402,586
1916.....	6,817	12,417,944	12,386	3,894,731	18,559	8,514,975	24,827,650

## SHIPPING.

## 47.—Sea-going and Inland Vessels (exclusive of Coasting Vessels) arrived at and departed from Canadian Ports, 1901-1916.

Fiscal Years.	British.		Canadian.		Foreign.		Total Tonnage.
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	
1901.....	4,319	6,694,133	30,211	8,540,089	33,302	10,795,586	26,029,808
1902.....	4,363	6,865,924	33,202	9,654,528	40,148	13,504,952	30,025,404
1903.....	4,647	7,753,788	31,534	10,482,940	53,545	15,418,315	33,655,043
1904.....	4,997	8,045,817	30,934	9,955,290	35,739	13,201,098	31,202,205
1905.....	4,614	8,034,652	29,729	11,047,447	35,647	13,195,721	32,277,820
1906.....	5,104	9,059,453	32,239	11,241,915	37,644	14,430,804	34,732,172
1907 (9 mos.)....	4,408	7,576,721	30,654	11,582,409	25,263	11,436,761	30,595,891
1908.....	6,356	10,329,515	28,795	11,717,846	40,461	17,527,670	39,575,031
1909.....	5,795	10,405,370	29,247	13,805,790	38,677	16,490,443	40,701,603
1910.....	5,780	11,038,709	28,635	15,680,534	41,650	17,848,748	44,567,991
1911.....	6,870	12,712,337	29,670	16,380,146	40,892	18,337,062	47,429,545
1912.....	6,766	13,342,929	27,949	18,069,983	45,399	21,560,215	52,973,127
1913.....	7,307	13,896,353	42,624	20,677,938	47,303	23,275,492	57,849,783
1914.....	7,418	15,711,849	30,234	17,026,121	55,835	29,181,513	61,919,483
1915.....	6,949	13,931,091	29,359	17,504,751	48,635	22,168,311	53,604,153
1916.....	6,817	12,417,944	37,900	17,372,836	75,411	27,930,318	57,721,098

## 48.—British and Foreign Vessels employed in the Coasting Trade of Canada, 1912-1916.

Vessels Arrived.		1912.	1913.	1914.	1915.	1916.
British—						
Steam.....	No.	68,841	69,468	72,470	68,505	66,415
Tons register.....		29,467,280	32,674,896	36,914,752	32,856,755	32,051,456
Number of crew....		1,403,593	1,519,500	1,631,917	1,436,800	1,378,957
Sail.....	No.	21,566	21,797	20,717	19,914	18,239
Tons register.....		4,289,056	4,393,786	3,718,813	3,509,585	2,915,808
Number of crew....		84,303	84,824	82,190	78,221	72,213
Foreign						
Steam.....	No.	669	493	466	880	452
Tons register.....		1,175,516	718,005	774,356	1,587,007	562,311
Number of crew....		16,918	10,791	12,374	23,826	11,198
Sail.....	No.	106	269	308	355	457
Tons register.....		43,824	86,230	70,480	97,205	94,499
Number of crew....		774	2,343	2,148	2,605	3,627
Description of vessels						
Steam, screw.....	No.	60,268	61,656	62,615	61,948	59,659
Steam, paddle.....		7,217	6,323	8,099	6,128	5,821
Steam sternwheel..	"	2,025	1,982	2,222	1,309	1,387
Sail, ships.....	"	3	12	5	4	28
Sail, barks.....	"	21	22	17	22	16
Sail, barkentines..	"	8	7	7	4	12
Sail, brig.....	"	9	—	6	—	—
Sail, brigantines..	"	18	9	15	14	1
Sail, schooners....	"	15,215	15,178	15,258	15,428	14,990
Sail, sloops, barges, canal boats, etc..	"	6,398	6,838	5,717	4,797	3,649



## TRANSPORTATION AND COMMUNICATIONS.

## 48.—British and Foreign Vessels employed in the Coasting Trade of Canada, 1912-1916—concluded.

Vessels Departed.	1912.	1913.	1914.	1915.	1916.
British—					
Steam..... No.	62,828	64,542	66,017	63,029	60,950
Tons register.....	25,743,368	30,540,676	32,233,008	30,083,292	29,606,475
Number of crew....	1,269,203	1,452,445	1,515,052	1,332,671	1,255,655
Sail..... No.	21,486	21,647	20,845	20,204	18,311
Tons register.....	4,308,367	4,400,192	3,743,733	3,208,071	2,801,400
Number of crew....	84,771	81,096	78,934	76,213	71,473
Foreign—					
Steam..... No.	656	476	489	961	429
Tons register.....	1,203,322	741,846	831,337	1,663,222	585,053
Number of crew....	17,550	12,451	14,674	25,018	10,657
Sail..... No.	151	347	340	401	418
Tons register.....	36,929	89,082	70,330	94,845	92,422
Number of crew....	881	2,895	2,489	4,104	3,782
Description of Vessels—					
Steam, screw..... No.	55,621	58,056	57,636	57,398	54,975
Steam, paddle.....	5,826	4,977	6,651	5,283	5,051
Steam, sternwheel..	2,037	1,985	2,219	1,309	1,353
Sail, ships.....	4	8	4	3	7
Sail, barks.....	17	20	16	21	24
Sail, barkentines...	21	7	7	1	5
Sail, brigs.....	8	-	6	-	-
Sail, brigantines....	123	12	11	30	-
Sail, schooners.....	14,987	15,008	15,259	14,705	15,216
Sail, sloops, barges, canal boats, etc...	6,477	6,939	5,882	5,845	3,477

## 49.—Canadian and American Vessels trading on Rivers and Lakes between Canada and United States, exclusive of ferriage, 1912-1916.

Vessels Arrived.	1912.	1913.	1914.	1915.	1916.
Canadian—					
Steam..... No.	7,667	9,476	7,863	8,398	12,191
Tons register.....	6,872,839	6,284,121	5,830,926	7,104,254	6,590,696
Number of crew....	219,901	217,275	211,317	236,161	242,201
Sail..... No.	969	765	1,028	718	804
Tons register.....	340,531	226,781	244,778	224,992	228,199
Number of crew....	4,699	3,735	4,741	3,531	3,675
American—					
Steam..... No.	10,346	16,478	16,270	13,893	25,821
Tons register.....	6,458,095	8,798,388	9,378,264	6,340,243	9,104,989
Number of crew....	156,135	212,936	238,010	218,230	276,539
Sail..... No.	4,253	4,095	3,155	2,459	2,187
Tons register.....	825,450	837,813	752,322	504,437	562,894
Number of crew....	11,179	11,268	8,962	5,856	7,113
Description of vessels—					
Steam, screw..... No.	14,905	22,377	20,564	18,892	34,828
Steam, paddle.....	3,049	3,461	3,481	3,282	3,124
Steam, sternwheel..	59	116	88	117	60
Sail, schooners.....	1,208	1,157	1,163	701	801
Sail, sloops.....	47	61	59	26	19
Sail, barges.....	3,967	3,642	2,961	2,450	2,171

## SHIPPING.

## 49.—Canadian and American Vessels trading on Rivers and Lakes between Canada and United States, exclusive of ferriage, 1912-1916—concluded.

Vessels Departed.	1912.	1913.	1914.	1915.	1916.
Canadian—					
Steam..... No.	7,295	8,871	7,548	7,540	11,754
Tons register.....	5,929,860	5,916,549	5,586,139	5,944,096	6,446,516
Number of crew....	199,304	201,851	191,672	187,139	231,211
Sail..... No.	1,052	792	1,009	800	765
Tons register.....	308,590	222,603	303,479	226,398	212,694
Number of crew....	4,995	3,686	4,270	3,454	3,541
American—					
Steam..... No.	10,649	16,368	16,454	14,052	25,410
Tons register.....	6,757,973	8,350,949	9,526,231	7,269,707	9,076,845
Number of crew....	163,626	201,321	235,933	212,239	279,449
Sail..... No.	5,017	4,723	4,145	3,171	3,434
Tons register.....	890,184	981,471	728,858	587,440	670,615
Number of crew....	12,862	16,397	10,707	7,761	9,320
Description of vessels—					
Steam, screw..... No.	14,689	22,034	20,907	18,484	34,156
Steam, paddle.....	3,199	3,095	2,983	2,990	2,945
Steam, sternwheel..	56	110	112	118	63
Sail, schooners.....	1,253	1,154	1,145	809	778
Sail, sloops.....	41	68	77	29	22
Sail, barges.....	4,775	4,293	3,932	3,133	3,399

## 50.—Vessels built and registered in Canada and Vessels sold to other Countries, 1901-1916.

Fiscal Year.	Built and Registered.		Sold to other Countries.		
	No.	Tonnage.	No.	Value.	Tonnage.
1901.....	327	35,156	5	66,468	4,490
1902.....	316	34,236	27	235,865	11,360
1903.....	312	41,405	21	220,602	11,172
1904.....	243	33,192	11	87,115	7,208
1905.....	335	27,583	21	100,363	3,696
1906.....	420	37,639	45	187,725	9,487
1907 (9 months).....	257	31,635	17	68,190	3,855
1908.....	357	78,144	28	132,900	4,515
1909.....	277	32,899	16	98,643	3,644
1910.....	220	33,383	14	133,800	5,047
1911.....	234	50,006	17	201,526	5,885
1912.....	302	30,021	18	140,350	4,265
1913.....	328	30,225	20	610,650	7,976
1914.....	230	46,909	27	169,618	8,258
1915.....	327	55,384	21	1,150,950	17,044
1916.....	325	102,239	21	192,575	4,529

NOTE.—For 1874-1900, see Canada Year Book, 1911, p. 383.

## TRANSPORTATION AND COMMUNICATIONS.

## §1.—Number and Net Tonnage of Vessels on the Registry of Shipping, Canada, 1912-1915.

Description.	1912.		1913.		1914.		1915.	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
Steamers <sup>1</sup> .....	3,667	389,376	3,847	430,117	4,054	453,171	4,132	459,182
Ships.....	5	9,157	3	5,207	4	4,589	3	2,791
Barks.....	18	21,607	16	19,141	16	20,765	16	20,236
Barkentines.....	14	10,014	13	9,361	10	5,862	11	6,006
Brigantines.....	10	1,504	9	1,405	9	1,390	7	914
Schooners.....	2,808	172,660	2,721	173,768	2,650	164,276	2,614	159,142
Sloops.....	710	27,180	702	27,459	702	27,182	644	23,895
Barges.....	606	101,503	624	110,191	641	115,701	610	109,397
Scows.....	349	46,925	392	51,688	451	64,420	478	68,869
Yachts.....	1	3	1	3	1	3	1	3
Yawls.....	10	154	12	269	14	359	14	359
Cutters.....	9	87	10	100	10	100	10	100
Drill boats.....	3	1,088	4	1,379	4	1,379	4	1,379
Dredges.....	135	34,891	155	46,359	169	52,509	178	56,336
House-boats.....	11	1,035	11	1,035	11	1,035	11	1,035
Horse-ferries.....	5	59	5	59	5	59	4	49
Floating lights.....	6	331	6	331	6	331	6	331
Pile Drivers.....	1	17	1	17	1	17	1	17
Light ships.....	4	472	4	472	4	472	4	472
Cat boats and lug-gers.....	5	13	5	13	5	13	4	10
Lighters.....	2	238	2	238	2	238	2	238
Floating Dry Dock.....	1	17,964	1	17,964	1	17,964	1	17,964
Rock Breaker.....	—	—	1	389	2	587	2	587
<b>Totals.....</b>	<b>8,380</b>	<b>836,278</b>	<b>8,545</b>	<b>896,965</b>	<b>8,772</b>	<b>932,422</b>	<b>8,757</b>	<b>929,312</b>

<sup>1</sup> Embracing 346 paddle-wheel steamers with a registered tonnage of 63,982 tons and 3,786 screw steamers with a registered tonnage of 395,200 tons for the year 1915.

## §2.—Steamboat Inspection during the Fiscal Year 1915-1916.

Division.	Number of Vessels Inspected.				Number of Vessels not Inspected.	
	Vessels registered or owned in the Dominion.		Vessels registered or owned elsewhere.			
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
Nova Scotia.....	170	49,843	15	40,440	29	4,971
New Brunswick.....	152	31,362	14	21,880	47	14,850
Quebec and Sorel.....	168	60,585	1	1,452	15	2,803
Montreal.....	199	41,648	8	26,323	38	4,269
Kingston.....	143	50,370	22	14,035	31	4,991
Toronto.....	368	211,231	59	72,696	66	11,838
Collingwood.....	117	20,505	2	4,012	22	2,167
Port Arthur.....	65	30,285	7	11,075	42	3,121
Kenora.....	56	8,684	—	—	26	2,205
Edmonton.....	25	2,728	—	—	13	1,177
Vancouver.....	232	56,509	8	2,868	52	7,107
Victoria.....	117	46,332	22	33,925	48	24,324
Total.....	1,812	610,652	158	228,706	429	83,823

## SHIPPING.

## 52.—Steamboat Inspection during the Fiscal Year 1915-1916—concluded.

Division.	Number of Vessels subject to Inspection when in Commission.		Number of Vessels added to the Dominion.		Number of Vessels lost, broken up or destroyed.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
Nova Scotia.....	214	95,254	1	151	5	5,480
New Brunswick.....	213	68,092	2	110	2	1,303
Quebec and Sorel.....	184	64,840	14	7,476	11	2,247
Montreal.....	245	72,240	7	724	9	256
Kingston.....	196	69,396	5	679	3	4,666
Toronto.....	493	295,735	24	13,154	7	796
Collingwood.....	141	26,684	7	1,172	14	1,654
Port Arthur.....	114	44,481	1	1,476	7	192
Kenora.....	82	10,889	4	701	1	44
Edmonton.....	38	3,905	5	899	4	521
Vancouver.....	292	66,484	3	591	10	900
Victoria.....	187	104,581	5	1,927	2	1,009
<b>Total.....</b>	<b>2,399</b>	<b>922,581</b>	<b>78</b>	<b>29,060</b>	<b>75</b>	<b>19,068</b>

**Seamen Shipped and Discharged.**—Table 53 shows, for each year from 1908 to 1915, the number of seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act (R.S. 1906, c. 113, ss. 141-143).

## 53.—Number of Seamen Shipped and Discharged at Canadian Ports, 1908-15.

Year.	Seamen Shipped.	Seamen Discharged.	Year.	Seamen Shipped.	Seamen Discharged.
1908.....	18,013	11,542	1912.....	13,708	11,290
1909.....	20,502	11,573	1913.....	16,975	13,749
1910.....	16,735	11,069	1914.....	18,987	14,989
1911.....	13,748	11,301	1915.....	22,797	14,319

**Wrecks and Casualties.**—The statement in Table 54, supplied by the Department of Marine, applies to vessels of every nationality in respect of wrecks and casualties in Canadian waters and to Canadian vessels in respect of wrecks and casualties in other waters. The returns in some years cover wrecks and casualties of previous years.

## 54.—Canadian Wrecks and Casualties for the years ended June 30, 1901-1916.

Year.	Casualties.	Tonnage.	Lives lost.	Damages.	Year.	Casualties.	Tonnage.	Lives lost.	Damages.
1870—	No.	Tons.	No.	\$	1910.	No.	Tons.	No.	\$
1900	9,670	3,577,367	5,096	61,525,760	1911.	321	211,565	101	1,569,580
1901.	136	47,181	126	285,782	1912.	271	122,619	48	942,093
1902.	222	105,814	132	835,910	1913.	293	269,569	59	1,053,768
1903.	237	162,297	32	409,991	1914.	275	270,905	160	1,963,870
1904.	192	81,143	9	489,699	1915.	255	210,368	1,083	4,983,775
1905.	178	79,588	15	621,267	1916.	280	234,036	63	1,459,012
1906.	220	139,586	149	573,420		308	242,990	67	1,377,442
1907.	317	131,441	55	672,466					
1908.	297	120,269	34	1,390,891	<b>Totals</b>	<b>13,825</b>	<b>6,176,650</b>	<b>7,260</b>	<b>81,286,698</b>
1909.	343	189,906	24	1,131,966					

<sup>1</sup> Includes 1,042 lives lost in the "Empress of Ireland" disaster.



## TRANSPORTATION AND COMMUNICATIONS.

## 55.—Comparative Statement of Marine Danger Signals, 1906-1916.

Description.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Light stations....	838	901	957	946	969	952	—	—	—	—	—
Lights.....	1,053	1,145	1,162	1,193	1,227	1,291	1,452	1,393	1,461	1,521	1,555
Lightships.....	—	—	11	11	12	13	12	12	12	12	12
Lightboats.....	—	—	2	2	2	1	1	1	1	1	1
Light Keepers.....	883	908	914	923	961	976	975	1,020	1,040	1,066	1,099
Fog whistles.....	53	54	13	15	14	14	13	14	13	11	11
Sirens.....	—	—	3	3	3	2	2	2	2	2	2
Diaphones.....	—	—	51	65	72	82	83	89	98	105	110
Fog bells.....	16	18	19	20	20	23	29	26	26	29	31
Hand fog horns...	—	—	111	108	121	129	137	145	150	148	151
Hand fog bells....	—	—	3	4	4	3	2	3	3	3	3
Gas and whistling buoys.....	151	183	213	234	254	260	281	299	319	336	327
Whistling buoys...	53	30	20	23	24	28	27	29	30	31	31
Bell buoys.....	69	52	52	58	50	55	65	71	82	86	89
Submarine bells...	—	—	9	9	9	10	10	10	13	21	22
Fog guns or bombs	9	9	7	7	7	8	9	9	9	9	8
Fog horns.....	41	41	24	20	17	12	14	11	12	10	7
Fog alarm stations	—	—	8	9	9	9	9	12	11	12	13
Gas beacons.....	—	—	25	27	32	—	—	—	—	—	—

NOTE.—Besides the foregoing, in 1916 there were 188 lighted spar-buoys, floats and dolphins.

## 56.—Revenue of the Department of Marine, 1912-1916.

Heads of Revenue.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Harbours, piers and wharves.....	24,761	34,161	31,802	34,013	57,829
Earnings of Dominion steamers.....	36,035	38,017	28,653	35,579	35,071
Decayed pilots' fund.....	4,228	4,816	5,697	5,949	5,669
Steamboat inspection fund.....	4,141	4,293	3,556	4,065	3,677
“engineers' fees.....	1,756	1,705	1,865	1,642	1,415
Sick mariners' fund.....	60,457	63,663	70,541	72,525	72,546
Examination masters and mates.....	3,803	3,639	5,549	4,546	4,828
Casual revenue, sundries.....	49,229	34,442	68,188	143,588	279,678
Sale of Steamer “Earl Grey”.....	—	—	—	493,000	—
Miscellaneous.....	1,169	989	1,183	643	744
<b>Total revenue.....</b>	<b>185,579</b>	<b>185,725</b>	<b>217,034</b>	<b>795,550</b>	<b>461,457</b>

## SHIPPING.

## 57.—Expenditure of the Department of Marine, 1912-1916.

Heads of Expenditure.	1912.	1913.	1914.	1915.	1916.
<b>Ocean and River Service—</b>					
Dominion steamers and ice breakers.....	\$ 943,031	\$ 940,121	\$ 999,187	\$ 995,546	\$ 1,124,708
Rewards for saving life, etc....	68,755	95,844	139,885	—	—
Wrecking plants (subsidy)....	30,000	35,000	34,281	45,000	45,000
Patrolling northern waters, etc.	40,048	10,732	—	—	—
Other items of expenditure....	47,074	39,503	42,925	70,403	44,210
<b>Total.....</b>	<b>1,128,908</b>	<b>1,121,200</b>	<b>1,216,278</b>	<b>1,110,949</b>	<b>1,213,918</b>
<b>Lighthouse and Coast Service—</b>					
Agencies, rent and contingencies.....	89,559	116,505	136,528	141,075	143,881
Salaries and allowances to lightkeepers.....	419,645	415,294	420,616	449,999	449,961
Maintenance and repairs to lighthouses, etc.....	596,463	687,813	699,786	712,448	604,625
Construction of lighthouses, etc.....	762,489	642,417	851,965	996,638	564,665
Breaking ice in Lake Superior.	23,296	54,172	29,856	38,062	30,600
New steamer for St. Lawrence.	—	103,896	—	130,957	14,377
Lighthouse buoy steamer for the St. Lawrence.....	—	—	45,270	—	—
New steamer for Pacific Coast.	—	133,024	—	—	—
New steamer to replace Maisonneuve.....	—	—	—	—	10,021
New lighthouse and buoy steamer for B.C.....	137,018	—	—	—	—
Wireless telegraph stations...	—	—	—	—	—
Other items of expenditure....	99,772	109,614	140,082	113,981	119,629
<b>Total.....</b>	<b>2,128,242</b>	<b>2,262,735</b>	<b>2,324,103</b>	<b>2,583,160</b>	<b>1,937,759</b>
<b>Public Works, chargeable to capital—</b>					
Ship Channel, River St. Lawrence.....	749,284	651,571	1,004,145	999,762	981,762
Dredging plant, River St. Lawrence, Montreal to Father Point.....	418,178	673,019	695,614	578,621	767,078
New ice-breaking steamer for River St. Lawrence.....	—	—	240	251,082	101,690
New sweeping testing steamer St. Lawrence.....	—	—	—	62,577	86,561
<b>Total.....</b>	<b>1,167,462</b>	<b>1,324,590</b>	<b>1,699,999</b>	<b>1,892,042</b>	<b>1,937,090</b>

## TRANSPORTATION AND COMMUNICATIONS.

## 57.—Expenditure of the Department of Marine, 1912-1916—concluded.

Heads of Expenditure.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Scientific Institutions—					
Meteorological Service.....	145,077	146,449	199,134	201,805	172,390
Other items of expenditure....	3,067	997	892	—	—
<b>Total.....</b>	<b>148,144</b>	<b>147,446</b>	<b>200,026</b>	<b>201,805</b>	<b>172,390</b>
Marine hospitals, etc.....	57,016	53,690	55,910	65,801	66,741
Steamboat inspection.....	45,353	54,147	63,714	65,063	64,884
Departmental salaries <sup>1</sup> .....	200,139	213,418	231,237	239,932	205,496 <sup>2</sup>
Contingencies.....	35,875	35,997	36,760	44,156	23,333
<b>Total expenditure.....</b>	<b>4,911,139</b>	<b>5,213,223</b>	<b>5,828,027</b>	<b>6,202,908</b>	<b>5,621,611</b>

<sup>1</sup>Including salaries of Fisheries Branch.<sup>2</sup>Salaries of Marine Department only.

## 58.—Total Revenue and Expenditure of the Department of Marine, 1868-1916.

Year.	Revenue.	Expenditure.	Year.	Revenue.	Expenditure.	Year.	Revenue.	Expenditure.
	\$	\$		\$	\$		\$	\$
1868...	71,811	371,071	1884...	118,080	927,242	1900...	130,229	982,562
1869...	75,351	360,900	1885...	101,268	1,129,901	1901...	144,919	1,029,925
1870...	71,490	367,189	1886...	91,885	980,121	1902...	148,607	1,501,619
1871...	70,254	389,537	1887...	102,238	917,557	1903...	139,876	1,671,495
1872...	79,324	518,958	1888...	99,920	883,251	1904...	128,507	2,150,940
1873...	114,756	706,818	1889...	99,940	1,023,801	1905...	121,815	4,747,723
1874...	108,350	845,151	1890...	115,507	807,417	1906...	139,475	5,066,253
1875...	91,235	844,586	1891...	104,248	885,410	1907...	106,260	3,637,600
1876...	107,984	970,146	1892...	106,582	861,427	1908...	177,591	5,374,774
1877...	105,907	820,054	1893...	107,390	898,720	1909...	169,502	5,498,531
1878...	100,850	786,156	1894...	165,870	905,654	1910...	156,957	4,692,771
1879...	84,144	755,359	1895...	99,557	895,828	1911...	154,492	4,197,420
1880...	91,942	723,391	1896...	103,012	793,634	1912...	185,579	4,911,139
1881...	108,304	761,731	1897...	111,009	867,773	1913...	185,725	5,213,223
1882...	109,125	774,832	1898...	120,602	856,192	1914...	217,034	5,828,027
1883...	104,383	825,011	1899...	126,528	1,102,602	1915...	795,550 <sup>2</sup>	6,202,908
						1916...	461,457	5,621,611

<sup>1</sup>Nine months.<sup>2</sup>Includes \$493,000 sale of steamer "Earl Grey" sold to Russian Government.

## SHIPPING.

## 59. —Shipping in the United Kingdom and British Possessions, 1910-14, exclusive of Coasting Trade.

(From the Statistical Abstracts of the United Kingdom and Colonial and Other Possessions.)

Countries.	Net Tonnage of Vessels entered and cleared.				
	1910.	1911.	1912 <sup>1</sup>	1913.	1914. <sup>2</sup>
	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom.....	134,030,000	138,910,000	152,457,000	164,810,000	140,089,000
British India <sup>3 4</sup> .....	14,993,701	16,616,435	17,484,391	17,386,408	12,857,885
Aden <sup>3 4</sup> .....	6,901,768	7,247,268	7,449,398	7,932,564	6,189,590
Straits Settlements and Labuan <sup>5</sup> .....	21,407,490	21,932,231	23,665,291	25,065,291	23,134,121
Ceylon <sup>6</sup> .....	14,769,208	14,926,764	15,420,142	16,126,254	14,272,694
Mauritius.....	986,267	877,691	773,092	833,027	874,969
Seychelles.....	373,394	413,240	349,830	323,287	248,702
Hong Kong <sup>7</sup> .....	20,956,504	20,490,520	21,614,995	22,939,134	22,069,879
Australia.....	9,333,146	9,984,801	10,275,314	10,601,948	10,732,854
Territory of Papua.....	256,286	253,122	275,803	306,478	358,506
New Zealand.....	2,756,238	2,949,780	3,340,722	3,438,792	3,506,830
Fiji.....	515,662	584,935	613,343	711,696	664,250
Falkland Islands.....	325,583	350,685	375,996	500,449	516,794
Union of South Africa.....	10,231,687	10,856,610	10,039,907	10,631,118	9,961,583
E. Africa Protectorate <sup>3 4 9</sup> .....	2,556,739	2,886,331	2,998,314	3,201,939	2,052,276
Zanzibar Protectorate <sup>10</sup> .....	1,215,956	1,420,837	1,565,638	1,668,200	1,259,566
Somaliland.....	111,918	123,759	103,202	113,561	156,365
St. Helena <sup>9</sup> .....	344,716	369,138	377,547	400,924	428,467
West Africa:—					
Nigeria.....	1,601,045	1,610,668	1,656,913	1,738,459	1,423,641
Gold Coast.....	2,599,388	2,676,440	2,849,248	2,986,553	2,811,274
Sierra Leone.....	1,994,290	2,493,439	2,676,471	2,931,085	2,780,118
Gambia.....	506,914	480,911	583,458	625,132	571,940
Total West Africa.....	6,701,637	7,261,458	7,766,090	8,281,229	7,586,973
North America:—					
Canada <sup>8</sup> .....	22,297,183	24,589,605	26,231,098	29,568,486	25,402,586
Newfoundland <sup>8</sup> .....	2,099,698	2,251,595	2,194,103	2,561,975	2,781,278
Total North America.....	24,396,884	26,841,200	28,425,201	32,130,461	28,183,864
West India Islands:—					
Bahamas.....	1,722,340	1,739,957	1,247,844	1,647,779	1,250,762
Turks' and Caicos Islands.....	385,763	338,112	378,753	406,326	385,101
Jamaica.....	3,823,931	4,319,112	4,688,438	5,118,123	4,306,848
Cayman Islands <sup>11</sup> .....	23,732	34,259	45,737	42,536	65,372
Windward Islands:—					
St. Lucia.....	2,792,359	3,996,163	3,490,042	3,546,690	3,192,431
St. Vincent.....	290,917	298,976	322,449	278,789	352,564
Barbados.....	3,395,080	3,475,511	3,653,784	3,771,598	3,528,130
Grenada.....	590,451	535,161	565,788	656,191	867,798
Leeward Islands <sup>12</sup> .....	2,338,322	2,379,894	2,183,292	2,028,056	2,603,266
Trinidad and Tobago.....	2,771,364	3,657,695	3,526,354	3,736,607	3,778,346
Total West Indies.....	18,134,259	20,774,840	20,102,481	21,232,695	20,330,618

N.B.—For Notes see foot of table on page 480.



## TRANSPORTATION AND COMMUNICATIONS.

**59.—Shipping in the United Kingdom and British Possessions, 1910-14, exclusive of Coasting Trade—concluded.**

(From the Statistical Abstracts of the United Kingdom and Colonial and Other Possessions.)

Countries.	Net Tonnage of Vessels entered and cleared.				
	1910.	1911.	1912.	1913.	1914.
	Tons.	Tons.	Tons.	Tons.	Tons.
Bermuda.....	1,388,987	1,402,920	1,273,936	1,255,866	1,211,002
British Honduras.....	979,427	588,367	629,064	816,858	923,979
British Guiana.....	1,006,199	988,663	934,745	921,385	1,039,582
Gibraltar.....	10,940,218	11,704,163	11,999,002	12,476,079	12,213,230
Malta <sup>2</sup> .....	8,667,037	8,240,820	10,398,948	11,097,612	7,705,015
Cyprus.....	742,584	758,502	644,363	721,515	581,926

<sup>1</sup> The figures from 1912 onward have been compiled on a somewhat different basis from those of previous years. <sup>2</sup> Figures for 1914 exclude vessels employed by the Government in connection with the war. <sup>3</sup> Including native craft. <sup>4</sup> For the 12 months ended March 31 of the year following that stated in the column. <sup>5</sup> Excluding the tonnage of vessels engaged in trade between the settlements. <sup>6</sup> Excluding the tonnage of vessels calling to coal, amounting to 1,720,358 tons in 1914. <sup>7</sup> Excluding Chinese junks. The tonnage of these junks entered and cleared in the foreign trade was 3,209,745 tons in 1914. <sup>8</sup> For the 12 months ended June 30 of the years stated in the column. <sup>9</sup> Gross Tonnage. <sup>10</sup> Excluding native craft. <sup>11</sup> For the 12 months ended September 30 of the years stated in the column. <sup>12</sup> Including Inter-Presidency Shipping.

**TELEGRAPHS.**

The Canadian Telegraph Systems include lines owned and operated by the Dominion Government and the lines owned and operated by railway and telegraph chartered companies. The Government telegraph service for the year ended March 31, 1916, had a total length of 11,843 miles of lines of which 331 knots (382 miles), calculated as statute miles, were submarine cables. During the year 1915-16 about 298 miles of new lines were constructed. The number of offices was 1,001, and the messages sent numbered 371,833. Details as to the location of the lines and points connected are given in the Report for March 31, 1916, of the Minister of Public Works (No. 19, 1917). The total expenditure on the Government telegraph lines for the year was \$680,361, and the receipts were \$181,227, signal service messages, meteorological service messages and fisheries bulletins being handled free. Table 60 gives the telegraph statistics for the years ended June 30, 1910-16, of the chartered companies, as compiled from information supplied to the Census and Statistics Office.

**Telegraph Statistics.**—The report on telegraph statistics for 1916, issued by the Department of Railways and Canals, shows that the number of land messages handled by telegraph organizations in the

## TELEGRAPHS AND TELEPHONES.

year ended June 30, 1916, was 10,835,936, as compared with 9,952,135 in 1915. Cablegrams numbered 1,134,905, as compared with 977,389 in 1915. Employees in the service of telegraph organizations numbered 6,581, of whom 3,935 were male and 479 were female operators; other officers and employees numbered 2,167. Salaries and wages amounted to \$2,898,230, as compared with \$2,946,327 in 1915. The aggregate of salaries and wages in 1916 was equal to 68.9 p.c. of operating expenses, as compared with 71.3 p.c. in 1915.

**Wireless Telegraph Coast Stations.**—Table 61 shows the name, situation and range in nautical miles of the radiotelegraph or wireless telegraph coast stations, as operated by the Department of the Naval Service, and Table 63 the number of messages and words handled and the cost of maintenance for the stations of the east and west coasts and of the Great Lakes. For the year 1915-16 the total number of messages was 161,477, as compared with 179,276 in 1914-15, and of words handled 2,797,062, as compared with 3,381,504 in 1914-15. Table 62 gives the names of the Canadian Government steamers that are equipped with radiotelegraphic apparatus, with the range of miles for each steamer. The range is from 100 to 200 miles in the case of the Canadian Government steamers, whilst the two war vessels, the Niobe and the Rainbow, have a range respectively of 400 and 250 miles.

## TELEPHONES.

The Report for 1916 of the Department of Railways and Canals on Telephone Statistics shows that the number of telephones in Canada in 1916 was 548,421, as compared with 533,090 in 1915, and the wire mileage was 1,600,564 in 1916, as compared with 1,452,360 in 1915. In 1916 the gross revenue from telephones was \$18,594,268, as against \$17,601,673, and the net revenue \$7,447,067, as against \$4,764,958. The number of telephone employees was 15,247, as compared with 15,072, and the salaries and wages amounted to \$7,852,719, as compared with \$8,357,029. The general progress of telephones in Canada since 1913 is shown in Table 64.

60.—Telegraph Statistics of Chartered Companies, 1910-1916.

Companies.	Year.	Miles of line.	Miles of wire.	Number of messages.	Number of offices.
Great Northwestern Telegraph Co..	1910	11,134	50,092	2,907,494	1,183.
	1911	10,726	50,568	3,812,159	1,194
	1912 <sup>1</sup>	9,582	46,311	4,400,443	1,175.
	1913	9,582	30,134	4,559,972	993
	1914	9,563	30,134	4,756,322	993
	1915 <sup>2</sup>	16,337	50,342	4,627,530	1,335.
	1916 <sup>2</sup>	17,696	53,881	5,580,956	1,393.

<sup>1</sup>This Company leased its property and plant in New York State to the Western Union Co., which accounts for the reduction in the figures of 1912.

<sup>2</sup>Including the Canadian Northern Railway Co.

## TRANSPORTATION AND COMMUNICATIONS.

## 6c.—Telegraph Statistics of Chartered Companies, 1910-1916—con.

Companies.	Year.	Miles of line.	Miles of wire.	Number of messages.	Number of offices.
Canadian Pacific Railway Co.....	1910	12,257	75,758	3,431,493 <sup>3</sup>	1,372
	1911	12,866	87,703	3,921,477 <sup>3</sup>	1,424
	1912	13,182	96,296 <sup>4</sup>	4,642,820 <sup>3</sup>	1,524
	1913	13,824	102,857	4,831,119 <sup>3</sup>	1,532
	1914	14,561	105,780	4,225,000 <sup>3</sup>	1,520
	1915	14,633	106,066	3,965,142 <sup>3</sup>	1,564
	1916	14,617	106,143	4,914,519 <sup>3</sup>	1,663
Western Union.....	1910	2,639	11,244	551,764	217
	1911	2,598	11,599	572,081	219
	1912	2,576	11,674	618,214	216
	1913	2,278	12,504	621,423	235
	1914	2,832	17,463	694,447	235
	1915	2,819	17,130	677,976	235
	1916	3,082	18,106	647,445	241
Timiskaming & Northern Ontario Railway.....	1910	265	1,865	131,106	22
	1911	294	2,299	211,920	25
	1912	300	2,670	167,326	26
	1913	343	1,407	147,634	27
	1914	343	1,407	136,258	27
	1915	332	1,413	120,170	28
	1916	332	1,670	111,225	28
Algoma Central Railway <sup>5</sup> .....	1910	130	174	3,639	4
	1911	214	517	4,497	6
	1912	378	700	—	7
	1913	314	413	—	8
	1914	424	799	—	8
	1915	424	799	—	8
	1916	424	799	—	8
Algoma Eastern Railway <sup>5</sup> .....	1913	85	89	—	3
	1914	85	89	—	4
	1915	85	171	—	4
	1916	85	171	—	4
Grand Trunk Pacific Telegraph Co.	1910	1,699	5,081	71,154	73
	1911	1,963	6,004	101,048	92
	1912	2,310	8,780	133,677	112
	1913	2,948	10,728	155,027	120
	1914	3,185	14,894	146,689	134
	1915	4,639	13,229	182,003	213
	1916	5,190	20,052	218,606	233
The North American Telegraph Co. Ltd.....	1910	44	783	38,015	63
	1911	44	783	40,508	62
	1912	44	783	46,999	61
	1913	44	783	49,308	61
	1914	44	783	43,180	59
	1915	44	664	45,451	54
	1916	44	664	53,340	50

<sup>3</sup>Not including press messages. <sup>4</sup>Including 962 miles of cables.<sup>5</sup>These are telephone lines and are used for both despatching and commercial business.

## TELEGRAPHS.

## 60.—Telegraph Statistics of Chartered Companies, 1910-1916—concluded.

Companies.	Year.	Miles of line.	Miles of wire.	Number of messages.	Number of offices.
Canadian Northern Railway Co. . . . .	1910	3,685	7,841	—	191
	1911	4,367	13,073	—	227
	1912	5,232	15,195	—	—
	1913	5,457	17,209	1,120,676	352
	1914	5,924	18,233	1,040,846	373
National Transcontinental Railway.	1911	313	—	—	—
	1912	1,171	—	—	—
	1913	1,429	—	—	—
	1914	1,798	—	—	—
	1915	1,990	4,834	—	—
	1916	2,003	5,087	—	—

## 61.—Coast Stations for Communication by Wireless Telegraphy with Ships at Sea, fiscal year 1916.

Name of Station.	Situation.	Range in nautical miles.
EAST COAST.		
Belle Isle, Nfld. . . . .	Belle Isle Straits. . . . .	250
Point Armour, Nfld. . . . .	Belle Isle Straits. . . . .	150
Point Riche, Nfld. . . . .	Gulf of St. Lawrence. . . . .	250
Harrington, Que. . . . .	Gulf of St. Lawrence. . . . .	150
Heath Point, Que. . . . .	Gulf of St. Lawrence (Anticosti Island)	250
Cape Ray, Nfld. . . . .	Cabot Straits. . . . .	350
Cape Race, Nfld. . . . .	North Atlantic. . . . .	400
Grindstone Island, Que. . . . .	Gulf of St. Lawrence (Magdalen Island)	200
Fame Point, Que. . . . .	Gulf of St. Lawrence. . . . .	250
Clark City, Que. . . . .	Gulf of St. Lawrence. . . . .	250
Father Point, Que. . . . .	St. Lawrence River. . . . .	250
Grosse Isle, Que. . . . .	St. Lawrence River. . . . .	100
Quebec, Que. . . . .	St. Lawrence River. . . . .	150
Three Rivers, Que. . . . .	St. Lawrence River. . . . .	150
Montreal, Que. . . . .	St. Lawrence River. . . . .	200
Cape Sable, N.S. . . . .	North Atlantic. . . . .	250
Partridge Island, St. John, N.B. . . . .	Entrance St. John, N.B., Harbour. . . . .	250
Cape Bear, P.E.I. . . . .	Northumberland Strait. . . . .	150
Pictou, N.S. . . . .	Northumberland Strait. . . . .	100
North Sydney, C.B. . . . .	North Sydney, C.B. . . . .	100
Camperdown, N.S. . . . .	Entrance to Halifax Harbour. . . . .	250
Sable Island, N.S. . . . .	North Atlantic. . . . .	300
Halifax, N.S. . . . .	Halifax Dockyard. . . . .	100



## WIRELESS TELEGRAPHY.

51.—Coast Stations for Communication by Wireless Telegraphy with Ships at Sea,  
fiscal year 1916—concluded.

Name of Station.	Situation.	Range in nautical miles.
GREAT LAKES.		
Port Arthur, Ont.	Port Arthur, Ont.	350
Sault Ste. Marie, Ont.	Sault Ste. Marie, Ont.	350
Tobermory, Ont.	Entrance Georgian Bay, Ont.	350
Midland, Ont.	Georgian Bay, Ont.	350
Point Edward, Ont.	Lake Huron.	350
Port Burwell, Ont.	Lake Erie.	350
Toronto, Ont.	Toronto Island, Ont.	350
Kingston, Ont.	Barriefield Common.	350
WEST COAST.		
Gonzales Hill, B.C. (Victoria)	Victoria, B.C.	250
Point Grey, Vancouver, B.C.	Entrance Vancouver Harbour.	150
Cape Lazo, B.C.	Strait of Georgia, near Comox, B.C.	350
Pachena Point, B.C.	West Coast Vancouver Island, B.C.	500
Estevan Point, B.C.	West Coast Vancouver Island, B.C.	500
Triangle Island, B.C.	South of Hecate Strait.	450
Ikeda Head, B.C.	South of Moresby Island, Q.C.I.	250
Dead Tree Point, B.C.	South of Graham Island, Q.C.I.	200
Digby Island, B.C., Prince Rupert.	Digby Island, Entrance Prince Rupert Harbour.	250
Alert Bay, B.C.	Cormorant Island, B.C.	350
HUDSON BAY.		
Port Nelson.	Hudson Bay.	750
Le Pas, Man.	For communication with Port Nelson only.	750
LICENSED COMMERCIAL STATIONS.		
Glace Bay, C.B.	Near Glace Bay, C.B.	3,000
Newcastle, N.B.	New Brunswick.	2,500
Louisburg, C.B.	Cape Breton.	Recep- tion only.
Ocean Falls, B.C.	Ocean Falls, B.C.	150
Powell River, B.C.	Powell River, B.C.	30
Glengarry, Alberta	Glengarry Sub. Calgary.	50
Section 11, Township 23.	Section 11, Township 23.	50

## 62.—Canadian Government Steamers Equipped with the Radiotelegraph.

Name.	Range.	Name.	Range.
	Miles.		Miles.
Niobe.	400	Quadra.	100
Rainbow.	250	Estevan.	200
Canada.	150	Dollard.	150
Acadia.	200	Newington.	100
Malaspina.	200	Lurche Lightship.	100
Galiano.	200	Simcoe.	100
Stanley.	150	Arnmöre.	200
Lady Laurier.	150	P.E. Island.	100
Aberdeen.	100	Durly Chine.	200
Druid.	100	Sheba.	200
Montcalm.	150	Lady Evelyn.	100
Lady Grey.	100	Margaret.	200

## TRANSPORTATION AND COMMUNICATIONS.

## 63.—Business and Cost of Maintenance of Radiotelegraph Stations for the fiscal years 1915 and 1916.

Stations.	1915.			1916.		
	Messages handled.	Words handled.	Cost of maintenance.	Messages handled.	Words handled.	Cost of maintenance.
	No.	No.	\$	No.	No.	\$
East Coast.....	59,846	1,196,512	64,312	45,195	864,020	68,140
Great Lakes.....	15,785	326,505	27,947	13,617	259,366	28,185
West Coast.....	98,386	1,532,526	44,239	95,018	1,103,395	47,048
Hudson Bay.....	5,259	325,961	1	7,617	570,281	1
<b>Totals.....</b>	<b>179,276</b>	<b>3,381,504</b>	<b>136,498</b>	<b>161,477</b>	<b>2,797,062</b>	<b>143,373</b>

<sup>1</sup>Borne by Department of Railways and Canals.

## 64.—Progress of Telephones in Canada, 1913-1916.

Items.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
Capitalization.....	59,847,004.83	70,291,884.15	74,284,991.51	76,920,314.37
Cost.....	69,214,971.45	80,258,356.00	83,792,583.06	88,520,020.22
Revenue.....	14,879,278.23	17,297,268.98	17,601,672.86	18,594,267.85
Operating Expenses.....	11,175,689.47	12,882,402.32	12,836,715.12	11,147,200.86
Remuneration.....	6,839,308.85	8,250,253.19	8,357,029.27	7,852,719.41
	No.	No.	No.	No.
Telephone Companies....	1,075	1,136	1,396	1,592
Wire Mileage.....	1,092,586	1,343,090	1,452,360	1,600,564
Telephones.....	463,671	521,144	533,090	548,421
Employees.....	12,867	16,799	15,072	15,247
Persons per Telephone...	16.2	15.5	15.1	14.6
Persons per mile of wire..	6.8	6.0	5.6	5.0

## 65.—Number of Telephone Companies reporting to the Department of Railways and Canals, by Provinces, June 30, 1916, with totals for 1913-14-15.

Provinces.	Government.	Municipal.	Stock.	Co-operative.	Partnership.	Private.	Total.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Isl'd.	—	—	5	25	—	—	30
Nova Scotia.....	—	—	24	106	2	7	139
New Brunswick....	—	—	20	5	2	2	29
Quebec.....	—	—	69	54	2	37	162
Ontario.....	1	54	163	210	15	59	502
Manitoba.....	1	6	6	17	2	5	37
Saskatchewan.....	1	5	318	344	—	—	668
Alberta.....	1	1	5	3	—	—	10
British Columbia..	—	1	11	1	—	1	14
Yukon.....	—	—	1	—	—	—	1
<b>Totals 1916.....</b>	<b>4</b>	<b>67</b>	<b>622</b>	<b>765</b>	<b>23</b>	<b>111</b>	<b>1,592</b>
<b>Totals 1915.....</b>	<b>4</b>	<b>62</b>	<b>584</b>	<b>601</b>	<b>28</b>	<b>117</b>	<b>1,396</b>
<b>Totals 1914.....</b>	<b>4</b>	<b>58</b>	<b>611</b>	<b>297</b>	<b>48</b>	<b>118</b>	<b>1,136</b>
<b>Totals 1913.....</b>	<b>4</b>	<b>52</b>	<b>543</b>	<b>262</b>	<b>63</b>	<b>151</b>	<b>1,075</b>

## TRANSPORTATION AND COMMUNICATIONS.

## 66.—Telephones in use and Mileage of Wire by Provinces, June 30, 1916, with totals for 1913-14-15.

Provinces.	Telephones in use.			Mileage of wire.		
	Central Energy.	Magne-to.	Total.	Urban.	Rural.	Total.
	No.	No.	No.	Miles.	Miles.	Miles.
Prince Edward Island.....	1,313	1,038	2,351	1,304	2,357	3,661
Nova Scotia.....	14,437	8,812	23,249	26,869	16,065	42,934
New Brunswick.....	10,414	8,361	18,775	19,330	9,922	29,252
Quebec.....	65,686	30,954	96,640	245,922	59,693	305,615
Ontario.....	136,650	112,330	248,980	423,055	180,562	603,617
Manitoba.....	29,410	18,493	47,903	109,688	64,653	174,341
Saskatchewan.....	9,906	20,314	30,220	61,330	85,313	146,643
Alberta.....	18,269	16,757	35,026	102,906	45,070	147,976
British Columbia.....	37,024	7,898	44,922	134,729	11,197	145,926
Yukon.....	—	355	355	232	367	599
Totals 1916.....	323,109	225,312	548,421	1,125,365	475,199	1,600,564
Totals 1915.....	313,225	219,865	533,090	1,009,147	443,213	1,452,360
Totals 1914.....	310,166	210,978	521,144	962,947	380,143	1,343,090
Totals 1913.....	269,843	193,828	463,671	755,588	336,999	1,092,587

## 67.—Wire Mileage of Telephones by Classes of Wire, June 30, 1915 and 1916.

Class of Wire.	1915.			1916.		
	Urban.	Rural.	Total.	Urban.	Rural.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Galvanized.....	28,230	373,393	401,623	29,419	406,621	436,040
Copper.....	21,001	60,237	81,238	17,837	63,379	81,216
Cable—Overhead.....	358,715	8,521	367,236	395,042	4,014	399,056
Underground.....	600,213	149	600,362	682,118	145	682,263
Submarine.....	988	913	1,901	949	1,040	1,989
Totals.....	1,009,147	443,213	1,452,360	1,125,365	475,199	1,600,564

## 68.—Capital Liability, Cost, Revenue and Operating Expenses of Telephones, June 30, 1916, with totals for 1913, 1914 and 1915.

Provinces.	Capital Stock.	Funded Debt.	Cost of Property and Equip-ment.	Revenue.	Operating Expenses.	Net Revenue.
Prince Edward Island.....	\$ 112,362	\$ 51,000	\$ 254,982	\$ 81,501	\$ 50,332	\$ 31,169
Nova Scotia.....	1,929,244	1,502,355	3,727,336	756,166	509,601	246,565
New Brunswick.....	1,456,433	63,150	1,928,805	517,831	294,832	222,999
Quebec.....	19,453,041	11,866,523	40,190,776	10,344,232	5,811,941	4,532,291
Ontario.....	2,089,924	2,012,699	5,503,713	1,042,729	681,726	361,003
Manitoba.....	23,177	11,103,026	11,137,815	1,903,447	1,353,985	549,462
Saskatchewan.....	914,844	7,132,962	7,984,304	1,108,868	648,953	459,915
Alberta.....	125,244	11,258,560	10,820,920	1,292,035	683,437	608,598
Brit. Columbia.....	3,247,687	2,513,083	6,801,190	1,511,389	1,092,936	418,453
Yukon.....	65,000	—	170,180	36,070	19,458	16,612
Totals 1916.....	29,416,956	47,503,358	88,520,021	18,594,268	11,147,201	7,447,067
Totals 1915.....	28,947,122	45,337,869	83,792,583	17,601,673	12,836,716	4,764,957
Totals 1914.....	28,644,340	41,647,554	80,258,356	17,297,269	12,882,402	4,414,867
Totals 1913.....	26,590,501	33,256,503	69,214,971	14,897,278	11,175,689	3,721,589

## POSTAL STATISTICS.

The Post Office Department reports an increase in the fiscal year 1915-16 of 2,007 miles in the system over which the mails are carried by railway, thus bringing the total actual track mileage for the carriage of mails to 33,363 on March 31, 1916. The total mileage of mail conveyance in the fiscal year 1916 was 62,785,323, of which 37,137,564 was by railway, 2,308,512 was by water, and 23,339,247 was by stage or road. The total represents a net increase in mileage, as compared with 1915, of 966,923, of which 423,024 was by railway, 676,355 was by road, and a decrease by water of 132,456. The expenditure of the Department increased by \$47,948, and there was a surplus from the operations of the Service of \$2,849,271. At the end of the calendar year 1916 there were 3,894 rural mail delivery routes, on which were erected 178,083 boxes; the corresponding figures for the calendar year 1915 were 3,432 routes and 154,183 boxes.

### 69.—Revenue and Expenditure of the Post Office Department for quinquennial periods 1890-1910, and for the years 1911-16.

Fiscal Years.	Net revenue.	Expendi- ture.	Deficit.	Surplus.
	\$	\$	\$	\$
1890.....	2,357,339	3,074,470	717,081	—
1895.....	2,792,790	3,593,647	800,857	—
1900.....	3,183,984	3,645,646	461,662	—
1905.....	5,125,373	4,634,528	—	490,845
1910.....	7,958,547	7,215,337	—	743,210
1911.....	9,146,952	7,954,223	—	1,192,729
1912.....	10,482,255	9,172,035	—	1,310,220
1913.....	12,060,476	10,882,805	—	1,177,671
1914.....	12,956,216	12,822,058	—	134,158
1915.....	13,046,650	15,961,191	—	—
1916.....	18,858,410	16,009,139	—	2,849,271

### 70.—Mail Subsidies and Steamship Subventions, 1914-1916.

Service.	1914.	1915.	1916.
	\$	\$	\$
Canada and Cuba.....	—	—	2,000
Canada and Great Britain.....	951,484	645,899	421,276
Canada and South Africa.....	146,000	146,000	146,000
Canada and Australia or New Zealand or both on Pacific Ocean.....	180,509	173,566	180,509
Canada (Atlantic) and Australia and New Zealand....	125,000	128,333	116,667
Canada and Mexico and Atlantic and Pac. Oceans.....	4,167	—	—
Canada and France <sup>1</sup> .....	195,458	105,428	88,669

<sup>1</sup>Under special statute.



## TRANSPORTATION AND COMMUNICATIONS.

70.—Mail Subsidies and Steamship Subventions 1914-1916—continued.

Service.	1914.	1915.	1916.
	\$	\$	\$
Canada, China and Japan <sup>1</sup> .....	118,850	137,019	—
Canada and Newfoundland.....	66,142	62,670	54,233
Canada and Manchester, England.....	35,000	35,000	34,271
St. John and Glasgow.....	10,875	7,450	7,125
St. John, Dublin and Belfast.....	6,750	7,500	7,500
St. John, Halifax and London.....	40,000	30,354	18,750
St. John and Digby.....	19,549	20,000	20,000
St. John, Digby, Annapolis and Granville.....	1,500	2,000	2,000
St. John and Minas Basin.....	7,812	7,547	5,915
St. John, Westport and Yarmouth.....	5,500	8,202	7,414
St. John, Halifax, West Indies and South America..	161,602	330,897	340,666
St. John and Cumberland Basin.....	2,694	3,000	3,000
St. John and Bridgetown.....	2,000	2,500	2,500
Halifax and Sherbrooke.....	2,000	2,000	2,000
Halifax, Mahone, Tancook Isle, etc.....	2,834	2,655	3,481
Halifax, St. John, Newfoundland and Liverpool.....	20,000	17,167	13,500
Halifax and Newfoundland.....	10,000	10,000	10,000
Halifax and Canso.....	5,000	5,000	5,000
Halifax and Spry Bay.....	2,000	4,000	3,680
Halifax and West Coast of C.B.....	1,556	3,059	3,000
Halifax, South Cape Breton and Bras d'Or Lake ports.....	3,667	3,167	2,666
Halifax and Liverpool, or Glasgow.....	—	4,000	—
Magdalen Islands and Mainland.....	15,000	18,000	17,769
Moncton and Way Ports and a Port or Ports on West Coast of Cumberland Co.....	—	—	2,500
Grand Manan and Mainland.....	9,904	10,000	10,000
P. E. Island and Mainland.....	12,500	12,500	12,500
P. E. Island, Cape Breton and Newfoundland.....	16,500	14,279	10,417
Quebec and Gaspe Basin.....	8,500	8,500	8,500
Quebec and Blanc Sablon.....	16,212	—	—
Quebec and Isle of Orleans.....	500	—	—
Quebec and North Shore Isle of Orleans.....	4,500	4,500	4,500
Mahone Bay and Tancook Island.....	1,000	—	—
Pictou, Murray Harbour, etc., and Georgetown.....	6,000	6,000	6,000
Pictou and New Glasgow and Antigonish County Ports.....	500	1,000	1,000
Pt. Mulgrave and Guysboro.....	5,236	5,500	5,500
Pt. Mulgrave, St. Peter, etc.....	5,920	6,500	6,500
Pt. Mulgrave and Canso.....	6,375	6,500	6,500
Pictou, Mulgrave and Cheticamp.....	7,000	5,943	6,673
Petit de Grat and Mulgrave I. C. R. Terminus.....	5,839	7,000	7,000
Baddeck and Iona.....	5,825	5,825	5,728
Cape, Dalhousie and Campbellton.....	20,000	9,615	20,000
Sydney and around C. B. Island.....	5,500	5,500	5,500
Sydney and Whycomagh.....	3,000	3,000	3,000
Sydney and Bay St. Lawrence Ports.....	6,000	6,000	6,000
St. Stephen, St. Croix, etc.....	6,000	6,000	6,000
St. Catharines Bay and Tadousac.....	3,431	3,297	2,392
Victoria, Vancouver and Skagway.....	12,500	12,500	12,500
Charlottetown, Victoria and Holiday's Wharf.....	2,500	2,500	2,500

<sup>1</sup> Under special statute.

## POST OFFICE.

## 70.—Mail Subsidies and Steamship Subventions, 1914-1916—concluded.

• Service.	1914.	1915.	1916.
	\$	\$	\$
Victoria and Vancouver Island (west coast).....	5,000	5,000	5,000
Victoria and San Francisco.....	3,000	2,971	3,000
Petitcodiac River and Cumberland Co., N.B.....	2,000	2,500	—
North Shore River St. Lawrence, between Quebec and Harrington.....	—	25,983	28,000
Newcastle, Neguac and Escouminac, Miramichi River.....	2,500	2,263	2,500
Pelee Island and Mainland.....	5,000	8,000	8,000
Froudes Point and Lockport.....	600	600	600
Prince Rupert, B.C., and Queen Charlotte Islands..	8,000	8,000	11,333
Rivière du Loup and Tadoussac.....	12,000	12,000	10,855
St. John and St. Andrews, N.B.....	4,000	4,000	4,000
Kenora, Rainy River and Fort Frances.....	8,000	7,051	5,017
Vancouver and Northern ports of B.C.....	16,800	16,800	16,800
Expenses in connection with the supervision of sub- sidized steamship services.....	2,596	2,593	2,852
<b>Total subsidies and subventions.....</b>	<b>2,383,687</b>	<b>2,162,633</b>	<b>1,768,757</b>

NOTE.—The figures in the above table are taken from the "Canada Public Accounts", as issued by the Finance Department: they represent the amounts paid in connection with contracts made under statutory authority by the Department of Trade and Commerce for trade services, including the conveyance of mails.

## 71.—Operation of the Money Order System in Canada, 1901-1916.

Fiscal Years.	Orders issued in Canada.	Value of orders issued in Canada.	Payable in		Value of orders issued in other countries payable in Canada.
			Canada.	Other countries.	
	No.	\$	\$	\$	\$
1901.....	1,151,024	17,956,258	14,324,289	3,631,969	2,592,845
1902.....	1,446,129	23,549,402	18,423,035	5,126,367	3,575,803
1903.....	1,668,705	26,868,202	20,761,078	6,107,124	4,604,528
1904.....	1,869,233	29,652,811	21,706,474	7,946,337	5,197,122
1905.....	1,924,130	32,349,476	23,410,485	8,938,991	5,602,257
1906.....	2,178,549	37,355,673	26,133,565	11,222,108	6,533,201
1907 (9 mos.).....	1,845,278	32,160,098	21,958,855	10,201,243	5,393,042
1908.....	2,990,691	49,974,007	31,836,629	18,137,378	7,933,361
1909.....	3,596,299	52,627,770	36,577,552	16,050,218	7,794,751
1910.....	4,178,752	60,967,162	41,595,205	19,371,957	8,048,467
1911.....	4,840,896	70,614,862	45,451,425	25,163,437	8,664,557
1912.....	5,777,757	84,065,891	52,568,433	31,497,458	8,712,667
1913.....	6,866,563	101,153,272	61,324,030	39,829,243	9,081,627
1914.....	7,228,369	109,500,670	66,113,221	43,387,449	9,807,313
1915.....	6,990,813	89,957,906	64,723,941	25,233,966	9,707,383
1916.....	7,161,375	94,469,871	75,781,582	18,688,289	9,858,137

NOTE.—For 1863 to 1900, see Canada Year Book, 1911, p. 289.

## TRANSPORTATION AND COMMUNICATIONS.

## 72.—Money Orders by Provinces, 1912-1916.

Provinces.	1912.	1913.	1914.	1915.	1916.
Money order offices in—	No.	No.	No.	No.	No.
<b>Canada</b> .....	<b>3,673</b>	<b>3,923</b>	<b>4,274</b>	<b>4,499</b>	<b>4,690</b>
Prince Edward Island...	33	35	39	40	43
Nova Scotia.....	296	307	313	320	327
New Brunswick.....	180	188	205	209	213
Quebec.....	847	873	923	976	1,022
Ontario.....	1,242	1,313	1,418	1,463	1,480
Manitoba.....	250	271	289	299	316
Saskatchewan.....	314	355	418	470	530
Alberta.....	225	261	307	341	367
British Columbia.....	280	312	356	375	386
Yukon Territory.....	6	8	6	6	6
Money orders issued in—					
<b>Canada</b> .....	<b>5,777,757</b>	<b>6,866,563</b>	<b>7,228,369</b>	<b>6,990,813</b>	<b>7,161,375</b>
Prince Edward Island...	27,027	30,632	31,142	37,255	36,066
Nova Scotia.....	362,180	416,417	414,347	426,561	436,651
New Brunswick.....	167,684	190,460	193,225	207,584	211,126
Quebec.....	872,343	1,009,494	1,058,370	992,127	944,912
Ontario.....	1,943,540	2,249,400	2,314,853	2,194,782	2,165,167
Manitoba.....	511,167	579,927	609,469	617,520	646,214
Saskatchewan.....	669,926	858,219	968,725	1,040,816	1,277,599
Alberta.....	535,250	696,877	781,838	757,890	810,246
British Columbia.....	679,017	823,505	842,980	702,899	623,149
Yukon Territory.....	9,623	11,632	13,420	13,379	10,245
Receipts for money orders issued in—	\$	\$	\$	\$	\$
<b>Canada</b> .....	<b>84,065,891</b>	<b>101,153,272</b>	<b>109,500,670</b>	<b>89,957,906</b>	<b>94,469,871</b>
Prince Edward Island...	398,236	448,844	504,712	562,370	515,805
Nova Scotia.....	4,815,748	5,370,698	5,566,825	5,376,556	5,687,850
New Brunswick.....	2,430,285	2,697,473	2,912,633	2,954,844	3,042,197
Quebec.....	12,713,948	14,614,485	16,013,433	13,621,392	12,664,737
Ontario.....	25,146,215	29,642,799	32,641,571	25,663,488	25,310,065
Manitoba.....	7,328,677	8,230,479	8,636,161	7,710,849	8,525,258
Saskatchewan.....	10,455,057	13,980,386	15,712,547	14,239,241	19,896,903
Alberta.....	8,142,612	11,182,136	12,253,076	9,594,821	10,656,188
British Columbia.....	12,269,040	14,577,704	14,793,581	9,856,321	7,836,706
Yukon Territory.....	366,073	408,268	466,131	378,024	334,162
Number of money orders paid in—	No.	No.	No.	No.	No.
<b>Canada</b> .....	<b>4,259,166</b>	<b>4,904,577</b>	<b>5,139,923</b>	<b>5,642,999</b>	<b>6,227,684</b>
Prince Edward Island...	22,020	24,494	24,932	26,433	24,674
Nova Scotia.....	200,293	221,706	219,642	222,702	219,196
New Brunswick.....	118,936	129,856	131,350	136,266	135,922
Quebec.....	730,111	810,632	785,336	800,563	754,002
Ontario.....	1,860,610	2,121,518	2,157,346	2,395,813	2,674,697
Manitoba.....	784,343	904,324	992,678	1,187,630	1,501,300
Saskatchewan.....	157,720	197,708	246,137	274,099	317,353
Alberta.....	171,136	222,963	271,489	293,393	297,858
British Columbia.....	212,967	270,169	309,741	304,537	301,341
Yukon Territory.....	1,030	1,207	1,272	1,563	1,341

## POST OFFICE.

## 72.—Money Orders by Provinces, 1912-1916—concluded.

Provinces.	1912.	1913.	1914.	1915.	1916.
Amount of money orders paid in—	\$	\$	\$	\$	\$
Canada.....	60,883,536	69,440,073	75,887,652	75,810,351	84,858,956
Prince Edward Island...	388,473	447,169	574,074	546,558	424,791
Nova Scotia.....	3,239,592	3,501,067	3,615,078	3,615,894	3,642,033
New Brunswick.....	1,944,676	2,076,110	2,214,650	2,276,618	2,249,360
Quebec.....	10,143,294	10,813,901	11,372,038	11,187,216	10,678,293
Ontario.....	22,356,135	24,909,663	26,506,701	27,070,523	30,733,388
Manitoba.....	11,069,176	12,895,357	14,288,363	14,697,989	19,214,676
Saskatchewan.....	3,606,320	4,645,201	5,608,279	5,395,096	7,029,022
Alberta.....	3,476,690	4,594,132	5,456,194	5,414,080	5,683,951
British Columbia.....	4,620,405	5,518,917	6,206,510	5,553,925	5,163,194
Yukon Territory.....	38,775	38,556	45,765	52,452	40,248

## 73.—Number and Total Values of Postal Notes, 1911-1916.

Value.	1911.	1912.	1913.	1914.	1915.	1916.
\$ c.	No.	No.	No.	No.	No.	No.
0.20.....	125,880	134,440	148,718	191,419	245,240	235,354
0.25.....	237,435	270,160	339,222	364,104	457,129	353,452
0.30.....	160,891	174,426	187,980	238,523	314,789	271,804
0.40.....	147,058	161,395	176,395	219,835	285,225	252,862
0.50.....	316,664	350,800	393,687	441,807	528,091	464,551
0.60.....	128,502	143,081	155,363	194,554	250,343	234,171
0.70.....	74,018	81,299	89,514	108,315	139,791	125,914
0.75.....	157,494	176,759	199,060	229,502	276,224	249,645
0.80.....	105,952	114,110	125,124	153,957	199,226	192,601
0.90.....	95,485	107,140	116,458	147,936	193,437	202,720
1.00.....	528,172	586,094	640,647	776,118	942,931	923,004
1.50.....	178,854	195,092	220,692	275,541	343,322	371,291
2.00.....	307,378	337,298	366,995	443,097	535,497	564,010
2.50.....	108,334	117,835	128,487	154,083	189,991	220,709
3.00.....	183,133	203,688	227,278	275,050	312,147	347,682
4.00.....	122,487	133,647	143,019	165,660	192,501	216,076
5.00.....	274,747	297,875	321,547	353,766	394,012	400,618
10.00.....	179,183	199,996	220,378	236,800	247,986	237,401
Total notes received..... No.	3,441,667	3,785,135	4,200,564	4,970,067	6,047,882	5,863,865
Total value..... \$	6,665,502	7,344,614	8,053,507	9,231,326	10,603,894	10,766,951
Commission received..... "	73,100	80,650	80,018	104,311	124,360	122,908
Postal notes issued to postmasters. No.	3,551,065	3,908,295	4,463,995	5,368,125	6,193,120	6,068,140
Value of notes issued..... \$	6,927,153	7,634,746	8,569,462	10,170,355	10,754,438	11,251,125



## TRANSPORTATION AND COMMUNICATIONS.

## 74.—Issue of Postage Stamps, etc., 1915-1916.

Denominations.	Issue 1915.		Issue 1916.	
	Number.	Value.	Number.	Value.
	No.	\$	No.	\$
1 cent postage stamps.....	365,217,400	3,652,174	400,949,800	4,009,408
2 " ".....	327,572,400	6,551,448	376,123,400	7,522,468
5 " ".....	15,757,750	787,887	15,579,150	778,958
7 " ".....	6,770,600	473,942	8,192,900	573,503
10 " ".....	6,351,925	635,192	8,656,600	865,660
20 " ".....	2,546,500	509,300	3,832,900	766,580
50 " ".....	315,480	157,740	450,425	225,212
10 cent special delivery stamps....	149,715	14,971	167,455	16,746
1 cent postage due stamps.....	572,100	5,721	586,100	5,861
2 " ".....	1,679,100	33,582	1,355,700	27,114
5 " ".....	548,100	27,405	268,400	13,420
1 cent war tax stamps.....	19,000,000	190,000	192,035,000	1,920,350
2 " ".....	450,000	9,000	41,639,300	832,786
3 cent postage and war tax stamps	-	-	68,744,600	2,062,338
1 cent stamp books.....	367,134	91,784	856,668	214,167
2 " ".....	1,833,908	458,477	863,780	215,945
1 " post bands.....	642,800	7,714	570,500	6,846
1 " post cards.....	26,850,300	268,503	5,302,500	53,025
1 " " advt. (16 on sheet)	800,000	8,000	524,000	5,240
1 " " " (8 " " )	5,391,000	53,910	775,000	7,750
1 " " " (single).....	378,200	3,782	815,900	8,159
2 cent post cards.....	-	-	13,434,500	268,690
2 " " " advt., 16 on sheet.	-	-	460,000	9,200
2 " " " " 8 " "	-	-	1,588,000	31,760
2 " " " " single.....	-	-	75,600	1,512
2 " Postal Union cards.....	54,350	1,087	29,200	584
2 " reply cards.....	331,850	6,637	98,050	1,961
1 " stamped envelopes.....	2,190,300	26,284	826,500	9,918
2 " " ".....	4,042,200	88,928	3,286,800	72,310
1 " special newspaper wrappers	822,100	8,221	796,300	7,963
6 " International reply coupons	13,995	840	15,580	935
STAMPS IN ROLLS.				
1 cent sidewise at \$5.06.....	46,951	237,572	48,863	247,247
2 " " " \$10.06.....	46,531	468,102	55,366	556,982
3 cent postage and war tax at \$15.06	-	-	7,408	111,564
1 " endwise \$ 5.06.....	401	2,029	105	531
2 " " " \$10.06.....	280	2,817	238	2,394
Totals.....	790,743,370	14,783,049	1,149,012,588	21,455,177

## IX.—LABOUR.

The Department of Labour of the Dominion Government was established in 1900 under the authority of the Conciliation Act, 1900 (63-64 Vict., c. 24), its chief duties originally comprising the administration of certain provisions of this statute designed to aid in the prevention and settlement of labour disputes, the administration of the Government's fair wage policy for the protection of workmen employed on Dominion Government contracts and works aided by grant of public funds, the collection and classification of statistical and other information relative to conditions of labour and the publication of a monthly journal known as the "Labour Gazette." From 1900 to 1909, the Department was administered by the Postmaster-General, who was also Minister of Labour. It was constituted a separate Department under the Labour Department Act, 1909 (8-9 Edw. VII, c. 22).

The work of the Department was greatly increased in 1907 by the passage of the Industrial Disputes Investigation Act, 1907 (6-7 Edw. VII, c. 20), which was designed to aid in the prevention and settlement of strikes and lockouts in mines and industries connected with public utilities. The Department is also charged with the administration of the Combines Investigation Act, 1910 (9-10 Edw. VII, c. 9). The scope of the Department has increased in other directions, especially in the investigation of the wholesale and retail prices of Canadian commodities and of questions affecting the cost of living. A change has been made in the "Labour Gazette" year, which terminates on December 31 instead of on June 30 as formerly.

**Labour Conditions in 1916.**—According to a review of industrial conditions which appeared in the January, 1917, issue of the "Labour Gazette," the close of the year 1915 showed a return to almost normal activity after the depression which began in 1913, and which was accentuated for a time on the outbreak of war. In 1916, with enlistments continuing and with industry speeded up still further, the supply of labour became quite inadequate, and efforts were made to dilute the labour supply with women workers. Some relief also came from the release of interned aliens and the slackening of municipal and other public works; and at the close of 1916 a year of almost abnormal activity has to be reported. Almost every group of manufacturing industries worked at high speed. Metals, machinery and conveyances, the group of industries on which of course the effect of the war was most marked, were greatly speeded up, larger outputs being reported from steel plants, locomotive works and automobile establishments. Shipbuilding was also active. In the textile and clothing groups the mills had to meet heavy war orders, and much overtime was worked. The transportation systems of the country were so heavily taxed by the vast increase in the export trade that the shortage of rolling stock and tonnage became serious towards the end of the year, and the question of cancelling some of the passenger services was raised. Metallic mining and ore refining were stimulated by the demand from munition plants, and coal mines worked to the capacity of the labour force to meet the heavier calls from railroads and manufactories. In building and construction there was improvement, as manufacturers made extensions to plant, but

## LABOUR.

railroad construction was quiet. Agriculture was adversely affected by the labour shortage, but as production was much smaller than in 1915 the demand for labour was not so great. Lumbering revived remarkably, but fishing fell off, especially on the west coast. Immigration for 1916 showed a gain over 1915, the increase being about 36 p.c. Wages were almost uniformly upward in 1916; of the 136 changes in wages and hours, affecting approximately 93,540 workpeople reported to the Department as taking effect during the year, one only showed a decline in the wage scale, four an increase in wages and reduction in hours, two a reduction in hours, while in 129 cases wage increases were indicated. Of these wage changes the greatest number occurred in steam railway service, and there were more workpeople affected in this occupation than in any other. The large number of changes in this service is accounted for in some degree by the fact that several of the organizations of railway employees had intended asking the companies for new agreements in 1914, but postponed this action on account of the war until the year 1916, when the sharp advance in the cost of living prompted them to take action.

**Labour Organization.**—The total trades union membership reported at the end of 1916 was 160,407, being comprised in 1,842 local branches of trade union organizations of all types. The membership reported at the close of 1915 was 143,343, comprised in 1,883 branches. There was, therefore, an increase of 17,064 members and a decrease of 41 branches during the year. Of the total trades union membership for 1916, 129,123 were members of international organizations, which have 1,626 local branches in Canada. The remaining 31,284 were members of national and independent bodies. There was a gain of 14,401 in the membership of international organizations, a gain of 3,443 among independent bodies and a decrease of 780 in national unions. From the outbreak of the war to the end of the year, it was reported to the Department of Labour by 1,287 local trade union branches that 21,599 trade unionists in Canada had enlisted for the war and 593 reservists rejoined the colours, making a total of 22,192 members who had joined the army.

**Industrial Disputes.**—The number of strikes and lockouts in Canada reported to the Department of Labour during 1916 was seventy-five, as compared with forty-three in 1915, which was the lowest on record since 1901, when the Department first collected statistics relating to strikes. The seventy-five strikes of 1916 involved 271 employers and 21,157 workpeople, with resultant time losses to the latter estimated at 208,277 working days. There was an increase in 1916 over 1915 of 175 in the number of employers and of 12,017 in the number of employees involved. The increase in time losses was 102,128 working days. The number of strikes which began in 1916 was seventy-four, one strike having been carried over from 1915. The industry most affected by strikes during 1916 was transportation, nineteen strikes, involving thirty-three concerns and 2,340 workers, whose time losses were estimated at 27,288 working days, being recorded. Fifteen strikes affecting forty-four employers and 2,883 workers, with time losses reckoned at 33,133 working days, were reported as affecting the metal, engineering and shipbuilding trades. Ten strikes involving the greatest number of



## LABOUR CONDITIONS IN 1916.

workers (11,814) and occasioning the greatest loss of time (88,634 days) occurred in the mining industry. Eleven strikes, involving eleven employers and 1,176 workers in the clothing and garment-making industry, were reported. A feature of the strike situation in 1916 may be noted with regard to the duration of strikes. The building trades were those most affected by prolonged disputes; the aggregate duration in working days of disputes under this heading was 351 days, although there were only seven strikes affecting these trades recorded by the Department. The settlement of five of these strikes resulted in favour of the workers. The majority of the strikes, also those causing the greatest loss of time, occurred in localities in Ontario, in which province thirty-three strikes, causing time losses estimated at 62,686 working days were reported. Quebec comes next with thirteen strikes, British Columbia follows with ten strikes affecting 9,835 workers, more than double the number affected in any other province, due to the large number of miners involved in the strikes occurring in the Crowsnest pass district. There were seven strikes in Manitoba, six in Saskatchewan, four in Alberta, one in Nova Scotia and one in New Brunswick.

Table 1 shows the time losses involved in the various classes of industries from 1901 to 1916, Table 2 the number of disputes year by year from 1901 to 1916, the classes of industries affected, the number of establishments and of employees concerned, and the approximate time losses in working days, and Table 3 the number of disputes, classified by industries, from 1901 to 1916. The figures in these tables are also shown graphically in the charts on page 496.

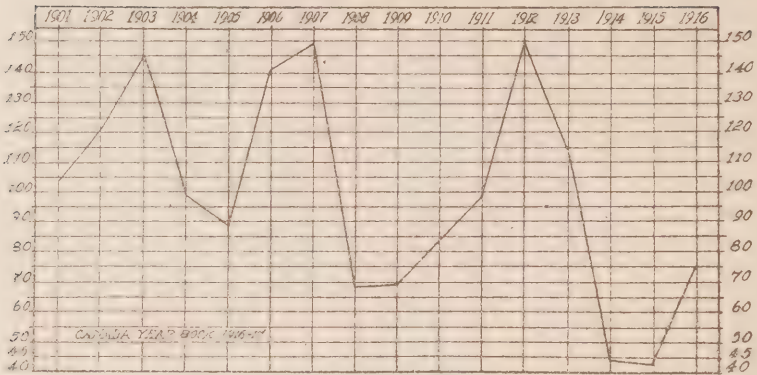
1.—Time Losses by Industries in Working Days, 1901-1916.

Industry.	1901-12.	1913.	1914.	1915.	1916.	Total.
	No.	No.	No.	No.	No.	No.
Fishing.....	203,488	49,600	—	—	—	253,088
Lumbering.....	75,347	137,300	—	—	—	212,647
Mining.....	3,839,447	702,726	169,200	16,794	88,634	4,816,801
Building.....	1,485,742	105,510	34,056	16,600	4,124	1,645,932
Metal.....	493,072	79,479	51,573	40,812	33,133	698,069
Printing and allied...	17,311	—	—	903	—	106,662
Woodworking.....	75,842	30,020	800	—	1,875	20,189
Textile.....	298,823	7,351	—	450	—	306,624
Clothing.....	620,205	107,052	160,270	2,540	19,341	909,408
Food and tobacco...	34,717	14,420	10,120	4,427	22,977	86,661
Leather.....	17,330	—	2,270	—	—	19,600
General transport...	1,153,665	23,988	300	19,360	27,288	1,224,601
Unskilled labour.....	493,589	20,382	—	—	7,660	521,631
Miscellaneous.....	79,803	9,850	1,465	4,263	3,245	98,626
<b>Total Working Days</b>	<b>8,888,381</b>	<b>1,287,678</b>	<b>430,054</b>	<b>106,149</b>	<b>208,277</b>	<b>10,920,539</b>

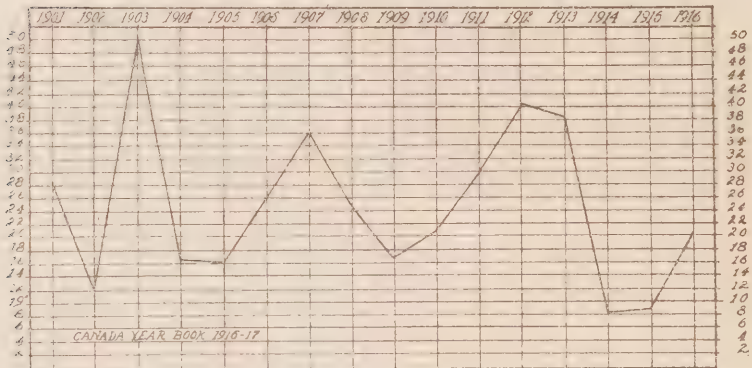


## LABOUR.

## STRIKES AND LOCKOUTS IN CANADA, 1901-1916.



Number of Strikes and Lockouts.



Number of Employees involved ("000" omitted).



Time Losses in Number of Working Days ("000" omitted).

## LABOUR CONDITIONS IN 1916.

## 2.—Number of Disputes, Establishments, Employees and Time Losses, 1901-1916.

Fiscal Year.	Dis-putes.	Estab-lishments con-cerned.	Em-ployees affect-ed.	Approxi-mate Time Losses.	Fiscal Year.	Dis-putes.	Estab-lishments con-cerned.	Em-ployees affect-ed.	Approxi-mate Time Losses.
	No.	No.	No.	Work-ing days.		No.	No.	No.	Work-ing days.
1901.....	104	273	28,086	632,311	1909....	69	397	17,332	871,845
1902.....	121	420	12,264	120,940	1910....	84	1,335	21,280	718,635
1903.....	146	927	50,041	1,226,500	1911....	99	475	30,094	2,046,650
1904.....	99	575	16,482	265,004	1912....	151	981	40,511	1,099,208
1905.....	89	437	16,233	217,244	1913....	113	1,015	39,536	1,287,678
1906.....	141	1,015	26,050	359,797	1914....	44	205	8,678	430,054
1907.....	149	825	36,224	621,962	1915....	43	96	9,140	106,149
1908.....	68	175	25,293	708,285	1916....	75	271	21,157	208,277
					Total...	1,594	9,430	398,401	10,920,539

## 3.—Disputes Classified by Industries, 1901-1916.

Industries.	1901-10	1911.	1912.	1913.	1914.	1915.	1916.	Total
	No.	No.	No.	No.	No.	No.	No.	No.
Fishing.....	10	—	1	3	—	—	—	14
Lumbering.....	28	—	4	3	—	—	—	35
Mining.....	87	7	6	6	3	6	10	125
Building.....	266	29	52	31	12	4	7	401
Metal.....	170	18	29	29	14	13	15	288
Woodworking.....	47	2	—	3	1	—	1	54
Printing and allied.....	28	—	3	—	—	1	—	32
Textile.....	36	4	1	3	—	1	—	45
Clothing.....	107	13	19	10	5	4	11	169
Food and tobacco.....	62	3	2	4	2	3	7	83
Leather.....	20	1	—	—	2	—	—	23
General transport.....	97	12	14	8	1	4	19	155
Unskilled labour.....	73	4	9	7	—	—	3	96
Miscellaneous.....	39	6	10	6	4	7	2	74
Total.....	1,070	99	150	113	44	43	75	1,594

## LABOUR.

**Proceedings under the Industrial Disputes Investigation Act.—**

A review of the proceedings which have occurred under the Industrial Disputes Investigation Act from the time of its enactment in March, 1907, to the end of the year 1916 shows that 217 applications were received for the establishment of Boards of Conciliation and Investigation, as a result of which 184 boards were established. In thirty-two cases the matters in dispute were adjusted by mutual agreement whilst steps were pending for the establishment of Boards or the necessity for procedure disappeared. In the remaining case a board was established early in the year 1917. The number of employees affected by these 217 disputes was approximately 350,000. During this period there were only twenty-one cases in which strikes were neither averted nor ended through the instrumentality of the Act. Eleven of these twenty-one strikes occurred in the mining industry, nine in connection with transportation, and one in the operation of municipal electric work. During the calendar year 1916 twenty-seven applications were received for boards, certain proceedings also taking place in connection with two applications received prior to the beginning of the year. In sixteen cases boards were established, and in ten cases the matters were adjusted without the necessity of establishing boards. In the remaining case a board was established early in the year 1917. Only one strike occurred after the matters in dispute had been referred to a board under the provisions of the Act.

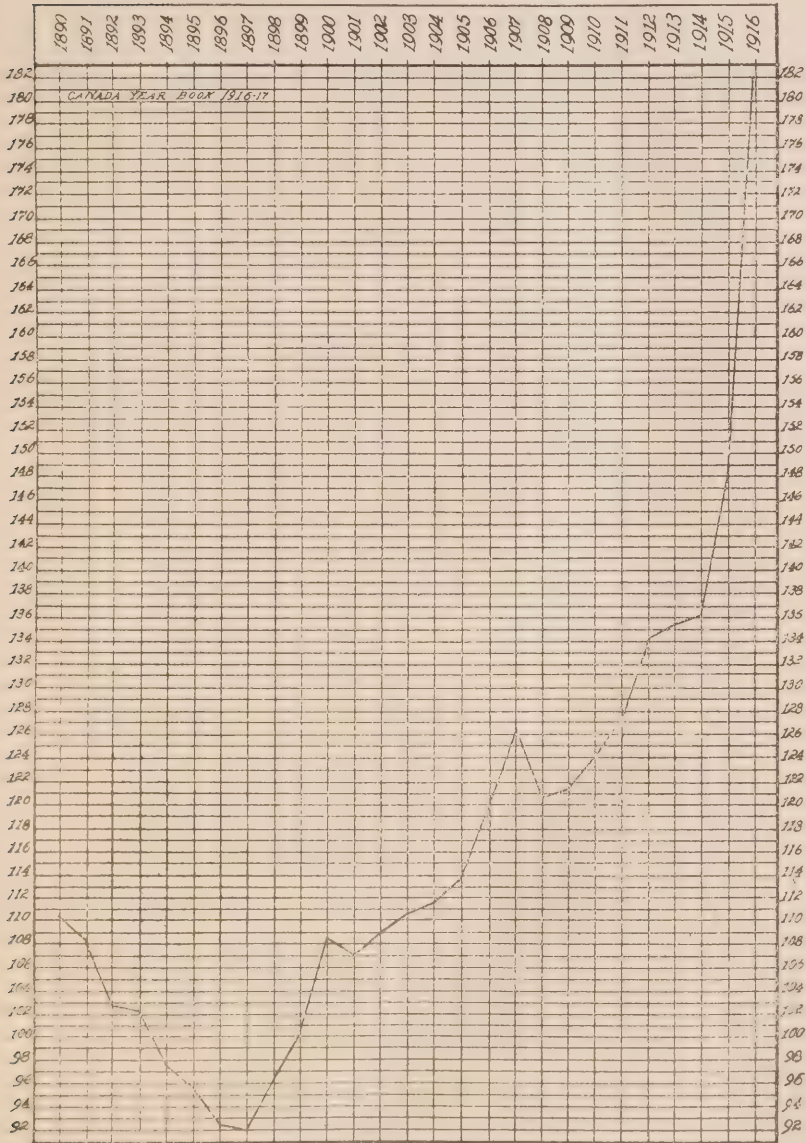
**Fair Wages Branch.**—The Fair Wages Branch of the Department of Labour is charged with the preparation of schedules of minimum wage rates, which are inserted in Dominion Government contracts, and must be adhered to by contractors in the execution of the respective works. The number of Fair Wages Schedules prepared since the adoption of the Fair Wages Resolution in 1900 up to the end of the year 1916 is 3,561, of which seventy-eight were prepared during the calendar year 1916.

**PRICES OF COMMODITIES IN CANADA.**

**Wholesale Prices.**—The Special Report on Wholesale Prices in Canada during the twenty years 1890-1909, issued by the Department of Labour in 1910, has been followed by similar annual reports for each year, 1910 to 1916. The changes in prices are measured by index numbers which are percentages of the average prices during the decade 1890 to 1899. The list includes 230 commodities from 1890 to 1909 and

## PRICES OF COMMODITIES IN CANADA.

COURSE OF WHOLESALE PRICES IN CANADA, 1890-1916.



Number of Commodities: 272. Average Prices, 1890-1899=100.



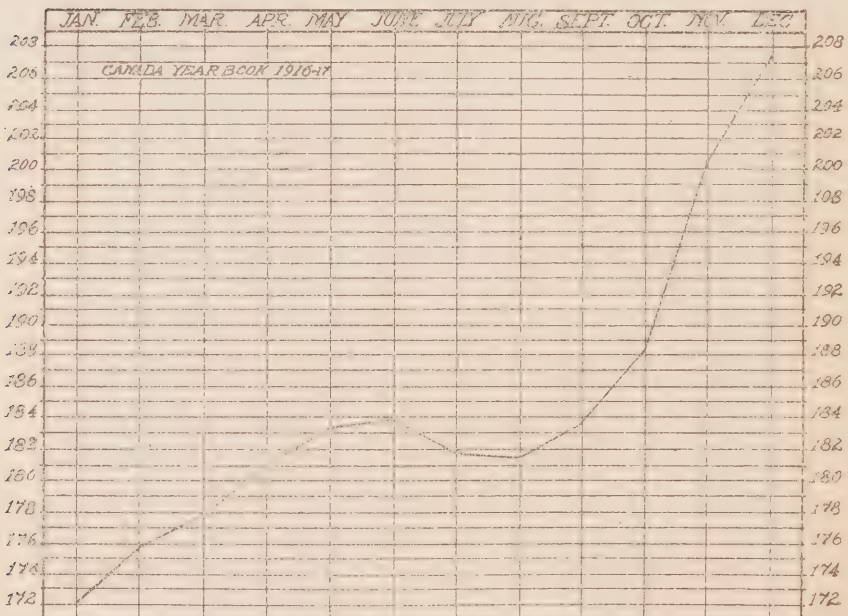
## LABOUR.

272 commodities from 1910 to 1916, and is divided into thirteen groups. The tables and diagrams show the course of prices by groups for each year back to 1890, and by months during 1916.

It will be seen that the advance in 1916 was very much greater than during 1915, which was greater than in any previous year. All groups showed great increases except lumber and the miscellaneous sub-groups. In farm products and foods the rise was particularly steep in the latter part of the year as a result of crop shortage.

**Retail Prices.**—The "Labour Gazette" published each month the retail prices of some thirty foods, coal, wood and coal oil and the prevailing rates for the rent of a six-roomed house, in some sixty localities in Canada having a population of 10,000 or over. Similar returns have been published monthly since January, 1910, and additional returns for December, 1900 and 1905, were published in the Report of the Board of Inquiry into the Cost of Living, 1914 and 1915. From these figures calculations of typical weekly expenditures have been made in terms of the average prices for each year and each month. The figures for the years 1910 to 1914 were given in the Canada Year Book, 1914, page 534. Table 6 shows the expenditures for 1900, 1905, 1915, each month for 1916 and the average for the year. Table 7 shows the weekly cost of staple foods, fuel and lighting in cities by provinces.

COURSE OF WHOLESALE PRICES IN CANADA, 1916.



Number of Commodities: 272. Average Prices, 1890-1899=100.

## INDEX NUMBERS OF COMMODITIES.

## 4.—INDEX NUMBERS OF ALL COMMODITIES BY GROUPS, 1890-1916.

(Average Prices 1890-1899=100.)

GROUPS.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
1. Grains and fodder....	116.7	123.9	106.7	99.1	94.3	98.8	85.2	80.6	98.8	96.7	99.9	107.3	116.1	106.5	115.5	116.4	118.5	140.2	148.3	149.9	140.7	148.4	167.3	138.8	156.5	180.9	195.2
2. Animals and meats...	111.2	104.7	108.8	117.7	98.7	92.2	82.4	90.4	97.9	95.1	103.4	111.3	122.2	117.9	111.1	120.7	130.1	133.8	129.6	148.6	163.6	146.6	160.8	180.8	192.3	187.2	217.7
3. Dairy produce.....	103.0	106.2	105.8	110.4	104.6	94.8	90.1	90.1	92.9	101.4	109.0	120.5	106.9	108.9	107.2	115.1	120.2	131.5	136.3	133.6	135.7	136.2	159.0	154.7	154.4	161.4	183.5
4. Fish.....	103.3	97.3	90.6	99.7	96.4	101.4	102.6	98.6	99.6	110.0	106.4	113.2	110.2	116.2	119.5	115.7	121.8	129.5	120.5	134.0	145.1	143.6	155.7	158.0	156.0	149.7	184.8
5. Other foods.....	120.3	121.3	104.7	102.1	95.0	95.2	87.1	86.0	94.3	93.6	96.4	98.6	98.4	98.1	101.8	100.7	103.1	112.5	110.3	107.6	111.3	118.7	126.0	117.4	118.8	125.5	156.2
6. Textiles.....	111.4	104.2	102.2	101.2	97.3	93.6	96.9	98.0	95.2	99.8	100.0	103.6	101.0	105.9	110.4	114.6	123.4	126.1	111.0	108.3	114.6	119.2	120.7	130.8	133.5	149.2	193.4
7. Hides, leather, boots	100.6	102.6	99.8	101.8	80.9	98.6	92.9	100.1	105.0	109.4	113.8	112.8	118.2	115.7	113.6	119.6	128.1	125.5	120.0	135.4	139.6	152.4	163.9	171.8	180.5	231.6	
8. Metals and imple- ments:—																											
(a) Metals.....	125.4	114.4	107.6	102.1	91.1	87.0	87.5	85.7	87.6	111.9	121.2	110.4	102.8	105.5	99.7	108.4	128.6	134.8	106.3	101.9	97.6	108.3	117.4	119.1	113.9	152.4	198.9
(b) Implements....	103.8	103.2	102.9	102.6	102.2	101.0	98.5	93.1	94.3	98.0	100.1	102.2	104.7	105.7	106.2	106.1	105.0	107.1	104.2	102.4	104.5	104.5	104.7	105.6	106.8	112.1	179.6
9. Fuel and lighting....	107.4	106.7	106.3	102.9	97.5	97.0	98.9	96.4	93.5	96.9	100.8	98.1	104.9	111.0	103.0	104.1	106.4	108.8	102.2	103.8	103.0	100.5	113.3	118.2	110.9	108.8	132.6
10. Building materials:—																											
(a) Lumber.....	103.5	102.7	104.4	103.7	104.6	102.8	97.1	93.9	90.8	95.8	114.0	114.6	122.0	128.8	131.3	134.1	152.7	165.2	162.6	154.6	158.5	165.4	166.5	181.3	182.1	175.7	182.1
(b) Miscellaneous..	117.6	110.4	106.8	103.7	98.7	95.2	93.9	87.7	87.4	97.2	111.8	106.0	104.6	107.7	107.2	106.8	104.7	108.7	107.5	105.7	108.2	102.6	105.4	112.7	111.4	115.9	154.9
(c) Paints, oils, glass	109.5	103.8	98.2	98.6	95.5	96.1	96.2	95.5	100.0	107.6	125.9	121.9	128.1	126.3	122.4	125.3	135.3	141.2	136.8	135.2	145.5	154.5	148.6	144.8	140.7	157.1	200.5
11. House furnishings....	100.2	100.5	100.9	101.1	101.3	97.9	97.5	99.8	99.6	100.2	110.2	107.9	109.2	109.6	112.7	107.3	113.0	112.7	112.8	110.4	110.6	110.4	114.5	126.2	129.5	138.5	157.1
12. Drugs and chemicals..	110.5	110.3	104.4	104.4	103.1	100.3	99.8	96.5	96.8	93.3	101.5	99.8	102.2	105.5	109.0	106.4	106.3	108.5	107.1	103.9	109.5	112.1	115.5	113.3	121.6	181.3	252.2
13. Miscellaneous:—																											
(a) Furs.....	86.5	99.7	103.7	123.6	113.5	80.5	80.7	88.0	111.1	111.8	147.3	140.9	145.2	168.1	171.3	217.4	229.2	239.4	231.8	227.2	234.5	252.9	297.3	307.9	205.4	161.9	299.8
(b) Liquors, tobac- cos.....	94.9	99.0	99.7	99.4	98.7	99.4	98.0	103.9	103.9	102.3	103.3	103.3	103.7	107.0	107.8	108.1	108.1	125.5	118.0	117.5	132.9	151.2	155.2	134.7	136.9	135.6	142.4
(c) Sundry.....	112.0	106.7	98.9	100.3	93.7	91.3	92.6	91.2	103.3	109.5	113.0	110.9	116.8	115.9	119.1	121.1	120.9	123.0	117.6	121.6	118.0	110.3	104.3	113.1	108.5	116.6	143.0
All Commodities.....	110.3	108.5	102.8	102.5	97.2	95.6	92.5	92.2	96.1	100.1	108.2	107.0	109.0	110.5	111.4	113.8	120.0	126.2	120.8	121.2	124.2	127.4	134.4	135.5	136.1	148.0	182.0

## LABOUR.

## 5.—INDEX NUMBERS BY GROUPS OF COMMODITIES FROM MONTH TO MONTH, 1916.

(Average Prices 1890-1899 = 100.)

GROUPS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1. Grains and fodder.....	181.0	179.1	172.5	177.0	184.0	178.4	179.0	187.9	200.5	220.7	246.1	238.4	195.2
2. Animals and meats.....	196.3	202.4	200.1	218.1	229.2	234.4	231.7	228.1	213.8	211.5	217.5	234.5	217.7
3. Dairy products.....	186.7	175.8	171.1	170.1	153.8	154.1	180.5	169.4	184.8	211.4	227.8	245.7	183.5
4. Fish.....	163.7	160.1	161.9	171.4	166.1	169.1	155.9	157.7	174.6	168.2	171.3	180.0	184.8
5. Other foods—													
(a) Fruits and vegetables.....	169.6	171.0	169.3	173.5	172.8	178.1	170.5	155.6	152.7	165.8	214.2	230.1	155.7
(b) Miscellaneous.....	143.2	145.0	145.2	147.3	153.7	152.4	153.6	157.0	161.2	168.4	178.5	174.1	156.6
6. Textiles.....	174.2	179.8	183.7	186.1	188.1	188.2	192.7	195.6	197.4	202.3	210.5	216.3	193.4
7. Hides, leather, boots and shoes.....	193.5	194.9	202.1	207.6	229.5	242.1	240.2	234.8	235.4	237.8	272.6	309.0	233.4
8. Metals and implements—													
(a) Metals.....	198.4	222.1	222.0	215.3	221.1	199.9	191.9	184.4	192.6	192.6	198.1	208.3	198.9
(b) Implements.....	116.6	122.0	127.9	134.8	134.4	136.1	136.7	136.7	139.1	141.2	145.9	151.5	135.2
9. Fuel and lighting.....	122.0	124.2	129.6	124.4	129.0	126.8	125.6	126.1	128.2	134.3	156.9	163.4	132.5
10. Building materials—													
(a) Lumber.....	178.1	177.3	180.2	182.4	182.4	182.2	182.2	182.2	182.9	185.5	184.1	185.3	182.1
(b) Miscellaneous.....	132.4	136.6	141.1	152.5	153.8	155.2	153.6	154.0	160.8	165.3	171.9	181.6	154.9
(c) Paints, oils and glass.....	193.9	192.5	190.1	198.9	196.8	193.7	197.4	199.9	199.7	203.7	215.1	222.6	200.5
11. House furnishings.....	146.7	147.4	148.7	148.7	152.3	152.3	152.6	162.3	163.0	166.1	169.0	171.8	157.1
12. Drugs and chemicals.....	250.4	255.8	261.4	260.9	263.5	262.1	249.0	249.4	251.9	243.9	239.2	238.5	252.2
13. Miscellaneous—													
(a) Furs, raw.....	269.6	273.7	287.4	295.7	307.8	300.8	292.3	292.3	292.3	292.3	342.7	351.0	299.8
(b) Liquors and tobacco.....	136.7	143.5	143.5	143.5	143.6	143.6	136.7	139.0	141.3	143.6	148.2	169.1	142.4
(c) Sundries.....	135.1	139.4	139.2	139.9	141.8	141.6	142.1	142.6	142.5	146.6	150.7	154.8	143.0
All Commodities.....	172.1	175.9	177.9	181.0	183.3	183.6	180.9	180.7	183.4	188.2	206.5	207.4	182.0

## WEEKLY COST OF A FAMILY BUDGET.

6.—Weekly Cost of a Family Budget of Staple Foods, Fuel and Lighting and Rent in terms of the average prices in 60 Canadian Cities, 1900, 1905, 1915 and 1916.

Commodities.	Quantity.	1916.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Beef, sirloin steak.....	2 lbs.	C 47.2	C 47.6	C 44.4	C 48.4	C 50.2	C 52.0	C 52.6	C 52.4	C 52.4	C 52.4	C 52.2	C 51.6
Beef, shoulder roast.....	2 "	C 32.4	C 33.0	C 33.2	C 33.7	C 34.0	C 35.0	C 35.2	C 34.2	C 34.4	C 34.4	C 34.2	C 33.8
Veal, roast.....	1 "	C 17.8	C 18.2	C 17.9	C 18.1	C 18.4	C 19.8	C 19.2	C 19.8	C 19.8	C 19.7	C 19.8	C 19.3
Mutton, roast.....	1 "	C 23.3	C 23.1	C 22.1	C 22.6	C 23.3	C 24.2	C 23.9	C 23.8	C 23.8	C 24.2	C 24.3	C 24.2
Pork, fresh, roast.....	1 "	C 30.6	C 30.4	C 30.5	C 30.9	C 31.8	C 32.2	C 32.4	C 32.7	C 32.8	C 33.2	C 33.4	C 33.2
Pork, salt, mess.....	2 "	C 26.7	C 26.8	C 27.2	C 27.6	C 28.4	C 28.9	C 28.7	C 28.9	C 29.2	C 30.5	C 30.6	C 30.9
Bacon, breakfast.....	1 "	C 37.2	C 37.0	C 37.3	C 37.8	C 38.0	C 40.2	C 40.4	C 40.4	C 41.0	C 42.2	C 45.0	C 47.6
Lard, pure leaf.....	1 doz.	C 46.4	C 46.2	C 46.7	C 47.3	C 48.0	C 50.2	C 50.4	C 50.4	C 51.0	C 52.2	C 55.0	C 57.6
Eggs, fresh.....	6 doz.	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7
Eggs, storage.....	6 doz.	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7	C 32.7
Milk.....	2 lbs.	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1
Butter, dairy.....	1 "	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5	C 25.5
Butter, creamery.....	1 "	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1	C 16.1
Cheese, old.....	1 "	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7
Cheese, new.....	1 "	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7	C 15.7
Bread, plain, white.....	15 "	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5	C 55.5
Flour, family.....	10 "	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0	C 25.0
Flour, oats.....	5 "	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0	C 18.0
Rice, good medium.....	2 "	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6
Beans, handpicked.....	2 "	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9	C 9.9
Apples, evaporated.....	1 "	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5	C 11.5
Prunes, medium.....	4 "	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6	C 21.6
Sugar, granulated.....	2 "	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0	C 10.0
Sugar, yellow.....	2 "	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2	C 8.2
Tea, black, medium.....	1 "	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7	C 8.7
Tea, green, medium.....	1 "	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6	C 8.6
Coffee, medium.....	1 "	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1	C 21.1
Potatoes.....	2 pbs.	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0	C 17.0
Vinegar, white wine.....	1 pt.	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8	C 8.8
All foods.....		\$8 282	\$8 404	\$8 380	\$8 342	\$8 373	\$8 513	\$8 457	\$8 627	\$8 967	\$9 297	\$9 812	\$10 107
Starch, laundry.....	1 lb.	C 3.2	C 3.2	C 3.3	C 3.3	C 3.3	C 3.3	C 3.3	C 3.3	C 3.3	C 3.5	C 3.3	C 3.4
Coal, anthracite.....	1/2 ton	C 53.2	C 53.6	C 53.5	C 53.5	C 53.9	C 54.4	C 54.7	C 55.0	C 57.2	C 57.9	C 62.4	C 63.1
Coal, bituminous.....	1/2 ton	C 36.9	C 37.4	C 37.6	C 37.7	C 37.9	C 38.0	C 38.0	C 38.5	C 39.1	C 39.9	C 44.2	C 47.3
Wood, hard.....	1 cord	C 41.6	C 41.5	C 41.6	C 41.5	C 41.6	C 41.8	C 41.9	C 42.6	C 43.1	C 43.9	C 48.5	C 44.5
Wood, soft.....	1 cord	C 30.7	C 30.4	C 30.3	C 30.2	C 30.1	C 30.2	C 30.2	C 30.5	C 31.0	C 31.6	C 32.7	C 32.2
Coal oil.....	1 gal.	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 23.0	C 22.9	C 23.1
Fuel and lighting.....		\$1 854	\$1 829	\$1 800	\$1 835	\$1 865	\$1 872	\$1 876	\$1 896	\$1 867	\$1 867	\$2 140	\$2 102
Rent.....		\$3 975	\$3 975	\$3 960	\$3 977	\$4 03	\$4 040	\$4 040	\$4 077	\$4 081	\$4 082	\$4 100	\$4 085
Grand total.....		\$14 143	\$14 270	\$14 213	\$14 211	\$14 301	\$14 458	\$14 406	\$14 632	\$15 017	\$15 376	\$16 068	\$16 328



## LABOUR.

7.—Weekly Cost of a Family Budget of Staple Foods, Fuel and Lighting, and Rent in terms of the average prices of the cities in each province of Canada, 1910-15, December 1914-16.

## STAPLE FOODS.

PROVINCE	1910	1911	1912	1913	1914	1915	Dec. 1914	Dec. 1915	Dec. 1916
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Prince Edward Is...	5.812	5.795	6.107	6.338	6.693	6.617	6.894	6.953	8.294
Nova Scotia.....	6.817	6.776	7.166	7.289	7.475	7.826	7.806	8.239	9.977
New Brunswick....	6.548	6.836	7.130	7.041	7.443	7.682	7.755	8.108	9.865
Quebec.....	6.331	6.457	6.968	6.870	7.158	7.387	7.310	7.760	9.738
Ontario.....	6.504	6.666	7.251	7.203	7.479	7.676	7.742	8.114	10.269
Manitoba.....	7.462	7.405	7.884	7.873	8.149	8.071	8.269	8.427	9.980
Saskatchewan.....	7.859	8.083	8.164	8.250	8.327	8.299	8.805	8.315	10.335
Alberta.....	7.998	8.081	8.147	8.327	8.266	8.209	8.467	8.356	10.351
British Columbia...	8.321	8.789	9.028	9.128	7.606	8.807	9.796	8.645	10.657

FUEL AND LIGHTING.<sup>1</sup>

Prince Edward Is...	1.278	1.278	1.494	1.470	1.504	1.508	1.486	1.548	1.908
Nova Scotia.....	1.431	1.366	1.448	1.526	1.569	1.554	1.552	1.553	1.955
New Brunswick....	1.628	1.601	1.604	1.676	1.762	1.761	1.784	1.788	2.057
Quebec.....	1.646	1.690	1.702	1.785	1.796	1.767	1.793	1.752	2.057
Ontario.....	1.678	1.716	1.743	1.814	1.802	1.782	1.782	1.779	2.088
Manitoba.....	2.330	2.333	2.373	2.335	2.362	2.305	2.329	2.228	2.523
Saskatchewan.....	2.670	2.732	2.580	2.652	2.604	2.372	2.560	2.394	2.585
Alberta.....	1.561	1.777	1.859	1.649	1.706	1.695	1.726	1.706	1.710
British Columbia...	2.193	2.182	2.220	2.245	2.567	2.301	2.367	2.180	2.179

## RENT.

Prince Edward Is...	2.00	2.00	1.92	1.75	1.750	1.750	1.750	1.750	2.250
Nova Scotia.....	4.02	3.40	3.70	3.92	4.258	4.150	4.150	4.150	4.150
New Brunswick....	2.85	2.87	2.90	3.08	3.374	3.452	3.450	3.452	3.500
Quebec.....	2.85	2.98	3.38	3.52	3.617	3.556	3.500	3.545	3.783
Ontario.....	3.48	3.62	3.92	4.10	4.215	3.857	4.042	3.780	3.957
Manitoba.....	6.20	6.12	6.90	7.38	6.677	4.593	5.812	4.870	4.750
Saskatchewan.....	8.18	8.75	9.15	9.58	7.682	5.468	6.095	5.150	5.310
Alberta.....	5.68	6.42	6.60	7.58	7.430	5.603	6.130	5.217	5.125
British Columbia...	5.35	5.92	6.12	7.12	5.306	4.535	4.725	4.017	3.928

<sup>1</sup>Coal, wood and coal oil. No allowance is made for the varying extent to which these are used in the different localities and provinces.

## X.—FINANCE.

Under the general heading of Finance in Section X are grouped statistics relating to the public accounts of the Dominion Government, including revenue and expenditure, public debt, assets and liabilities, coinage and inland revenue. Tables have been added showing the receipts and expenditure of each of the nine provincial governments of Canada, and these are followed by municipal statistics, values of building permits and statistics of banking, insurance and loan companies and building societies.

### PUBLIC ACCOUNTS.

**Financial System and Public Revenue.**—The Canadian system of public finance, which is based upon that of the British, includes a Consolidated Fund to which are credited and out of which are paid the revenues and expenditures properly relating to the fiscal year ending March 31. There are also miscellaneous accounts dealing with loans, debt-redemption, railway administration, capital expenditure on public works and a variety of other subjects. For the fiscal year 1912-13 the total receipts on Consolidated Fund Account reached the then record total of \$168,689,903. In the following year, 1913-14, they receded to \$163,174,395; for 1914-15, including the first eight months of the war, they fell to \$133,073,482, and for the first time since 1897 there was a deficit, the expenditure exceeding receipts by \$2,449,725. In the following year, 1915-16, with increase of taxation and improving conditions, the revenue rose to \$172,147,838, an amount higher than any previous total; and the account showed a surplus of \$41,797,111. For the fiscal year ended March 31, 1917, under the influence of an enormous expansion of trade, the revenue rose still higher to the record total of \$232,601,294, with a surplus of \$84,001,951, which is more than double the surplus of the previous year. The revenue exceeded \$100,000,000 for the first time in 1910, and it has in 1916-17 for the first time exceeded \$200,000,000. Table 1 shows that the greatest increase accrued in the item for customs, the receipts from which in 1916-17, viz., \$134,043,842, exceeded the total revenue of the country for the year 1914-15. In his Budget speech on April 24, 1917, the Minister of Finance stated that during the fiscal year 1916-17 the revenue had enabled the country to pay from income all current and capital expenditure, all interest charges upon the increased national debt, all pension outlays and, in addition, to devote the sum of \$60,000,000 to payment of the principal of the war expenditure.

**Consolidated Fund.**—Table 1 shows by principal items the receipts and expenditures and the surplus on Consolidated Fund Account for the fiscal years 1914 to 1917. Table 2, for the period 1868 to 1917, differentiates between receipts from customs and excise (taxes) and receipts from other sources, and shows the surplus or deficit each year on Consolidated Fund Account. From this table it will be seen that during the 50 years that have elapsed since Confederation surpluses have accrued in 37 years and deficits were incurred in only 13. Tables

## FINANCE.

**3-5** record details of the revenue and expenditure on Consolidated Fund Account. Tables **6** and **7** show the total annual expenditure and receipts, including the expenditure and receipts on Consolidated Fund Account and extraneous items not credited or debited to that account.

**Public Debt.**—Tables **9-12** relate to the Public Debt, showing in Tables **9-11** the amounts at which the various items stood in each year from Confederation, and in Table **12** particulars of the loans forming part of the Funded Debt. On March 31, 1917, the net public debt was \$879,186,298, which on the basis of the estimated population of 8,361,000 in 1917 represents \$105 per head, an increase of \$62 per head as compared with 1914. As compared with 1914 the net public debt shows an increase of \$543,189,448, this increase being due to the war.

## 1.—Receipts and Expenditures on Consolidated Fund Account, 1914-1917.

## RECEIPTS.

Items.	1914.	1915.	1916.	1917.
	\$	\$	\$	\$
Customs.....	104,691,238.43	75,941,219.72	98,649,409.48	134,043,842.14
Excise.....	21,452,036.88	21,479,730.79	22,428,491.58	24,412,348.06
Post Office.....	12,954,529.92	13,046,664.68	18,858,690.10	20,902,384.46
Railways.....	13,394,317.37	12,149,357.32	18,427,908.65	23,539,758.61
Miscellaneous.....	10,682,271.96	10,456,509.22	13,783,338.46	29,702,960.73
<b>Totals.....</b>	<b>163,174,394.56</b>	<b>133,073,481.73</b>	<b>172,147,838.27</b>	<b>232,601,294.00</b>

## EXPENDITURE.

Charges on debt <sup>1</sup> .....	14,752,117.46	17,937,284.08	23,926,441.95	37,770,650.72
Provincial Subsidies.....	11,280,468.67	11,451,673.28	11,451,673.28	11,469,148.48
Civil Government.....	5,607,794.95	6,157,966.62	6,408,856.63	6,466,358.63
Public Works <sup>2</sup> .....	19,007,512.63	19,343,532.35	12,039,252.06	8,633,095.80
Defence.....	11,151,398.63	10,060,617.74	4,681,502.99	4,301,784.90
Collection of Revenue.....	39,084,656.79	42,232,952.94	47,902,301.26	53,800,203.09
Other items.....	26,500,523.86	28,339,179.53	23,940,698.73	26,158,101.61
<b>Totals.....</b>	<b>127,384,472.99</b>	<b>135,523,206.54</b>	<b>130,350,726.90</b>	<b>148,599,343.23</b>
Surplus.....	35,789,921.57	2,449,724.81 <sup>3</sup>	41,797,111.37	84,001,950.77

<sup>1</sup>Includes charges of management, interest, sinking funds and premium discount and exchange. <sup>2</sup>Expenditure from Income. <sup>3</sup>Deficit.

## 2.—Receipts on Consolidated Fund Account, 1868-1917.

Fiscal Year.	Receipts from Taxes.	Receipts from various sources.	Total receipts.	Surplus in year.	Deficit in year.
	\$	\$	\$	\$	\$
1868.....	11,700,681	1,987,247	13,687,928	201,835	—
1869.....	11,112,573	3,266,602	14,379,175	341,091	—
1870.....	13,087,883	2,424,343	15,512,226	1,166,716	—
1871.....	16,320,369	3,015,192	19,335,561	3,712,479	—
1872.....	17,715,552	2,999,262	20,714,814	3,125,345	—
1873.....	17,616,555	3,196,914	20,813,469	1,638,821	—
1874.....	20,129,185	4,075,908	24,205,093	888,776	—
1875.....	20,664,879	3,983,836	24,648,715	935,644	—

## PUBLIC ACCOUNTS.

## 2.—Receipts on Consolidated Fund Account, 1868-1917—concluded.

Fiscal Year.	Receipts from Taxes.	Receipts from various sources.	Total receipts.	Surplus in year.	Deficit in year.
	\$	\$	\$	\$	\$
1876.....	18,614,415	3,973,172	22,587,587	—	1,900,785
1877.....	17,697,925	4,361,349	22,059,274	—	1,460,028
1878.....	17,841,938	4,533,073	22,375,011	—	1,128,146
1879.....	18,476,613	4,040,769	22,517,382	—	1,938,000
1880.....	18,479,577	4,827,830	23,307,407	—	1,543,228
1881.....	23,942,139	5,693,159	29,635,298	4,132,744	—
1882.....	27,549,047	5,834,409	33,383,456	6,316,352	—
1883.....	29,269,699	6,524,951	35,794,650	7,064,493	—
1884.....	25,483,199	6,378,763	31,861,962	754,256	—
1885.....	25,384,529	7,412,472	32,797,001	—	2,240,059
1886.....	25,226,456	7,950,584	33,177,040	—	5,834,572
1887.....	28,687,002	7,067,991	35,754,993	97,313	—
1888.....	28,177,413	7,731,051	35,908,464	—	810,031
1889.....	30,613,523	8,169,347	38,782,870	1,865,035	—
1890.....	31,587,072	8,292,853	39,879,925	3,885,894	—
1891.....	30,314,151	8,265,160	38,579,311	2,235,743	—
1892.....	28,446,158	8,475,714	36,921,872	155,978	—
1893.....	29,321,367	8,847,242	38,168,609	1,354,556	—
1894.....	27,579,203	8,795,490	36,374,693	—	1,210,332
1895.....	25,446,199	8,531,930	33,978,129	—	4,153,876
1896.....	27,759,285	8,859,306	36,618,591	—	330,551
1897.....	28,648,626	9,181,152	37,829,778	—	519,981
1898.....	29,576,456	10,978,782	40,555,238	1,722,712	—
1899.....	34,958,069	11,783,180	46,741,249	4,837,749	—
1900.....	38,242,223	12,787,771	51,029,994	8,054,714	—
1901.....	38,743,550	13,771,151	52,514,701	5,648,333	—
1902.....	43,389,112	14,661,678	58,050,790	7,291,398	—
1903.....	49,015,506	17,021,563	66,037,069	14,345,166	—
1904.....	53,661,319	17,008,498	70,669,817	15,056,984	—
1905.....	54,020,124	17,162,649	71,182,773	7,863,090	—
1906.....	60,074,818	20,064,542	80,139,360	12,898,719	—
1907 (9 mos.).....	51,565,586	16,403,742	67,969,328	16,427,167	—
1908.....	73,325,963	22,728,543	96,054,506	19,413,054	—
1909.....	62,353,093	22,740,311	85,093,404	1,029,172	—
1910.....	75,409,487	26,094,224	101,503,711	22,091,964	—
1911.....	89,835,231	27,945,178	117,780,409	30,006,211	—
1912.....	105,847,804	30,260,413	136,108,217	37,946,776	—
1913.....	135,002,358	33,687,545	168,689,903	56,630,366	—
1914.....	127,478,067	35,696,328	163,174,395	35,789,922	—
1915.....	97,715,441	35,358,041	133,073,482	—	2,449,725
1916.....	121,046,187	51,101,651	172,147,838	41,797,111	—
1917.....	158,543,115	74,058,179	232,601,294	84,001,951	—



## FINANCE.

## 3.—Details of Receipts on Consolidated Fund Account, 1901-1917.

Fiscal Year.	Customs.	Excise.	Chinese revenue.	Total taxes.	Casual receipts.
	\$	\$	\$	\$	\$
1901.....	28,293,930	10,318,266	131,354	38,743,550	562,923
1902.....	31,916,394	11,197,134	275,584	43,389,112	360,151
1903.....	36,738,033	12,013,779	263,694	49,015,506	840,759
1904.....	40,461,591	12,958,708	241,020	53,661,319	818,743
1905.....	41,437,569	12,586,475	—3,920 <sup>1</sup>	54,020,124	387,749
1906.....	46,053,377	14,010,220	11,221	60,074,818	876,871
1907 (9 mos.).....	39,717,079	11,805,413	43,094	51,565,586	845,146
1908.....	57,200,276	15,782,152	343,535	73,325,963	715,474
1909.....	47,088,444	14,937,768	326,881	62,353,093	629,833
1910.....	59,767,681	15,253,353	388,453	75,409,487	1,223,451
1911.....	71,838,089	16,869,837	1,127,306	89,835,232	1,898,521
1912.....	85,051,872	19,261,662	1,534,270	105,847,804	1,574,596
1913.....	111,764,699	21,447,445	1,790,214	135,002,358	1,645,398
1914.....	104,691,238	21,452,037	1,334,792	127,478,067	1,505,133
1915.....	75,941,220	21,479,731	294,490	97,715,441	1,602,619
1916.....	98,649,409	22,428,492	—31,714 <sup>1</sup>	121,046,187	1,328,124
1917.....	134,043,842	24,412,348	—86,925	158,543,115	2,072,837

Fiscal Year.	Cullers' fees.	Dominion lands.	Dominion steamers.	Electric light inspection.	Fines, forfeitures and seizures.	Fisheries.
	\$	\$	\$	\$	\$	\$
1901.....	8,271	1,517,320	19,527	15,363	23,063	88,145
1902.....	11,200	1,227,977	11,308	21,429	49,826	79,170
1903.....	7,273	1,695,591	16,086	23,870	59,848	78,636
1904.....	9,449	1,443,023	21,402	23,258	40,919	95,757
1905.....	8,219	1,292,301	20,245	28,000	52,919	90,988
1906.....	4,335	1,668,162	24,607	35,100	89,012	98,010
1907 (9 mos.).....	2,330	1,443,632	22,277	25,931	54,908	57,144
1908.....	4,850	1,883,620	38,211	42,316	58,666	90,686
1909.....	4,784	2,153,255	28,012	44,139	—1,989 <sup>1</sup>	82,696
1910.....	3,638	2,886,000	27,261	46,515	93,498	85,070
1911.....	2,685	3,108,736	24,744	59,808	58,488	100,862
1912.....	3,480	3,775,857	36,035	66,510	132,389	96,230
1913.....	4,039	3,402,027	38,017	75,307	166,414	106,463
1914.....	1,799	3,036,030	28,711	80,441	322,497	110,995
1915.....	3,115	2,859,715	35,579	82,440	49,636	101,636
1916.....	1,737	2,299,550	35,071	70,452	81,691	106,288
1917.....	1,555	4,055,662	22,832	71,366	240,100	104,310

<sup>1</sup>A deduction.

## PUBLIC ACCOUNTS.

## 3.—Details of Receipts on Consolidated Fund Account, 1901-1917—con.

Fiscal Year.	Gas inspection and law stamps.	Interest on invest- ments.	Insurance superin- tendence.	Militia.	Mis- cellaneous receipts.	Ordnance lands.
	\$	\$	\$	\$	\$	\$
1901.....	27,290	1,784,834	11,356	47,694	14,683	14,594
1902.....	28,297	1,892,224	12,844	41,687	20,106	16,967
1903.....	45,290	2,020,953	13,485	41,792	26,022	35,706
1904.....	43,961	2,236,256	14,628	43,217	24,436	12,344
1905.....	49,142	2,105,031	15,729	46,167	34,436	10,309
1906.....	52,805	2,140,312	16,669	55,262	40,680	10,841
1907 (9 mos.)...	39,228	1,235,746	18,169	40,987	26,938	6,663
1908.....	54,154	1,925,569	20,124	63,019	37,412	8,653
1909.....	55,841	2,256,643	25,424	55,810	39,200	5,713
1910.....	63,605	2,807,465	25,939	60,937	46,283	9,894
1911.....	69,958	1,668,773	29,435	75,913	52,162	5,910
1912.....	58,441	1,281,317	33,482	94,115	59,792	11,485
1913.....	70,648	1,430,511	37,499	88,145	74,396	60,600
1914.....	72,121	1,964,541	41,253	73,458	70,152	5,798
1915.....	66,630	2,980,247	45,562	96,878	63,280	4,410
1916.....	57,552	3,358,210	52,951	227,442	69,732	5,977
1917.....	63,977	3,094,012	172,743	131,810	76,119	5,553

Fiscal Year.	Patent fees.	Peniten- tiaries.	Post and money orders.	Public works. <sup>1</sup>	Premium and discount.	Steam- boat in- spection.
	\$	\$	\$	\$	\$	\$
1901.....	130,894	30,211	3,441,505	5,770,071	64,922	33,877
1902.....	140,960	73,601	3,918,416	6,447,982	89,238	38,459
1903.....	152,372	39,636	4,397,833	7,088,502	129,609	28,888
1904.....	162,715	72,863	4,652,325	6,972,219	77,316	10,812
1905.....	165,756	55,880	5,125,373	7,395,377	40,356	6,170
1906.....	187,792	75,261	5,933,343	8,310,267	160,665	4,604
1907 (9 mos.)...	144,279	82,660	5,061,728	6,839,586	249,588	2,989
1908.....	203,012	71,933	7,107,887	9,973,523	101,181	4,860
1909.....	204,872	47,643	7,401,624	9,362,272	7,061	7,967
1910.....	223,233	43,840	7,958,548	10,114,990	26,130	6,497
1911.....	231,866	50,498	9,146,952	10,818,834	164,623	5,585
1912.....	243,444	58,776	10,492,394	11,651,947	147,747	5,897
1913.....	257,833	64,529	12,051,729	13,158,078	416,745	5,998
1914.....	252,724	54,314	12,954,530	14,197,053	187,745	5,421
1915.....	219,011	44,547	13,046,665	12,953,487	268,572	5,707
1916.....	230,192	43,165	18,858,690	19,286,418	233,718	5,092
1917.....	251,960	60,191	20,902,384	24,440,840	398,907	4,037

<sup>1</sup>Including railways and canals.

NOTE.—For the years 1868 to 1900, see Canada Year Book 1911, pp. 248-252.

## FINANCE.

## 3.—Details of Receipts on Consolidated Fund Account, 1901-1917—concluded.

Fiscal Year.	War Tax.	Super-annuation.	Inspection of Staples.	Tonnage dues (mariners' fund).	Weights and Measures.	Total receipts.
	\$	\$	\$	\$	\$	\$
1901.....		50,475	—	59,784	54,351	52,514,701
1902.....		48,298	2,773	65,854	62,913	58,050,790
1903.....		47,402	102,881	64,852	64,278	66,037,069
1904.....		46,618	58,127	61,785	66,325	70,669,817
1905.....		45,937	63,163	58,372	65,030	71,182,773
1906.....		45,194	101,446	60,347	72,957	80,139,360
1907 (9 mos.) ..		33,321	70,939	44,705	54,848	67,969,328
1908.....		43,369	127,741	69,364	82,919	96,054,506
1909.....		42,408	140,669	66,249	80,184	85,093,404
1910.....		41,251	154,130	53,382	92,667	101,503,711
1911.....		39,250	178,476	55,430	97,668	117,780,409
1912.....		40,032	230,174	60,457	105,816	136,108,217
1913.....		38,435	330,430	63,663	100,641	168,689,903
1914.....		39,817	510,184	70,541	111,070	163,174,395
1915.....	98,057	37,366	517,035	72,525	103,322	133,073,482
1916.....	3,620,782	31,797	913,616	72,546	110,857	172,147,838
1917.....	16,186,745	33,250	1,459,811	76,994	103,184	232,601,294

## 4.—Details of Expenditure on Consolidated Fund Account, 1901-1917.

Fiscal Year.	Charges on public debt.				
	Interest on debt.	Charges of management.	Premium discount and exchange.	Sinking funds.	Total charges.
	\$	\$	\$	\$	\$
1901.....	10,807,955	102,828	39,033	2,480,337	13,490,153
1902.....	10,975,935	210,865	52,385	2,569,381	13,808,566
1903.....	11,068,139	229,673	65,295	2,620,588	13,983,695
1904.....	11,128,637	282,244	6,740	2,315,066	13,732,687
1905.....	10,630,115	276,072	—	2,261,618	13,167,805
1906.....	10,814,697	331,534	15,368	2,317,437	13,479,036
1907 (9 mos.) ..	6,712,771	231,690	12,858	1,177,147	8,134,466
1908.....	10,973,597	350,690	33,130	2,234,263	13,591,680
1909.....	11,604,584	326,953	29,754	1,922,525	13,883,816
1910.....	13,098,160	358,294	679	1,441,031	14,898,164
1911.....	12,535,851	374,847	1,930	1,203,416	14,116,044
1912.....	12,259,396	447,457	7,554	1,156,456	13,870,863
1913.....	12,605,882	483,613	19,375	1,384,285	14,493,155
1914.....	12,893,505	460,014	27,170	1,371,428	14,752,117
1915.....	15,736,743	451,324	103,405	1,645,812	17,937,284
1916.....	21,421,585	435,527	296,309	1,773,021	23,926,442
1917.....	35,802,567	496,387	—	1,471,697	37,770,651

## PUBLIC ACCOUNTS.

## 4.—Details of Expenditure on Consolidated Fund Account, 1901-1917—con.

Fiscal Year.	Collection of Revenue.					
	Adultera- tion of food.	Culling timber.	Customs.	Dominion lands.	Excise.	Inspection of staples.
	\$	\$	\$	\$	\$	\$
1901.....	24,991	18,448	1,123,817	133,417	458,383	14,835
1902.....	24,957	17,101	1,176,024	158,844	463,405	13,510
1903.....	19,841	16,378	1,229,029	136,356	478,984	66,261
1904.....	20,995	14,722	1,357,184	247,282	522,361	73,510
1905.....	21,359	13,913	1,468,093	276,982	537,814	88,661
1906.....	27,356	13,134	1,548,384	433,135	555,923	109,940
1907 (9 mos.)...	21,777	9,822	1,222,949	385,074	456,774	88,532
1908.....	26,575	12,904	1,923,854	562,712	636,892	132,487
1909.....	20,504	13,277	1,994,951	548,608	643,705	160,185
1910.....	22,163	12,756	2,025,453	599,613	660,465	184,871
1911.....	21,245	12,016	2,187,175	1,804,250	703,660	203,594
1912.....	22,786	11,970	2,443,846	2,277,100	755,968	226,895
1913.....	22,520	12,090	3,150,777	2,462,624	843,685	340,295
1914.....	30,202	8,798	3,849,084	3,286,480	858,166	450,738
1915.....	47,239	7,912	3,775,364	3,701,180	830,175	2,354
1916.....	44,722	6,838	3,685,399	3,418,298	897,671	2,067
1917.....	42,796	6,502	3,745,791	2,856,712	977,333	2,593

Fiscal Year.	Collection of revenue.						
	Minor revenue- s.	Post office.	Public works.	Railways and canals.	Trade and Com- merce.	Weights, meas- ures, gas and elec- tric light.	Total collection of revenue.
	\$	\$	\$	\$	\$	\$	\$
1901.....	1,718	3,931,446	272,809	6,377,961	41,699	103,725	12,503,249
1902.....	1,751	4,023,637	498,513	6,508,477	11,974	109,672	13,007,865
1903.....	2,659	4,105,178	562,404	7,221,705	30,671	121,575	14,041,041
1904.....	1,113	4,347,541	454,700	8,397,434	38,484	118,195	15,593,521
1905.....	1,949	4,634,528	560,361	9,803,912	60,215	125,650	17,593,437
1906.....	1,777	4,921,577	560,170	8,779,678	63,625	130,430	17,145,129
1907 (9 mos.)...	1,246	3,979,557	456,814	7,011,858	62,535	100,243	13,797,181
1908.....	2,703	6,005,930	583,953	10,586,114	102,881	150,324	20,727,329
1909.....	1,987	6,592,386	625,034	10,780,126	91,446	160,495	21,632,704
1910.....	680	7,215,338	576,491	10,215,038	132,103	166,224	21,811,195
1911.....	523	7,954,223	594,869	11,123,251	165,865	180,965	24,951,636
1912.....	<sup>1</sup>	9,172,036	651,554	12,330,463	158,938	205,224	28,256,780
1913.....	<sup>1</sup>	10,882,804	686,371	13,766,180	614,509	224,345	33,006,200
1914.....	<sup>1</sup>	12,822,058	780,455	14,935,138	1,805,441	253,096	39,084,656
1915.....	<sup>1</sup>	15,961,191	799,152	13,876,060	2,943,495	288,831	42,232,953
1916.....	<sup>1</sup>	16,009,139	857,877	20,777,830	1,897,245	305,215	47,902,301
1917.....	<sup>1</sup>	16,300,579	849,341	27,124,004	1,588,247	296,306	53,800,203

<sup>1</sup>Transferred to Adulteration of food.



## FINANCE.

## 4.—Details of Expenditure on Consolidated Fund Account, 1901-1917—con.

Fiscal Year.	Miscellaneous expenditure.					
	Adminis- tration of justice.	Arts, agri- culture, Census and Statistics.	Naval Service.	Civil govern- ment.	Fisheries.	Geo- logical Survey (Mines).
	\$	\$	\$	\$	\$	\$
1901.....	873,233	697,206	—	1,474,919	491,351	61,941
1902.....	949,230	1,274,790	—	1,497,369	548,895	68,730
1903.....	959,948	543,012	—	1,554,792	527,829	78,746
1904.....	984,258	659,896	—	1,652,782	634,319	74,432
1905.....	997,718	698,211	—	1,797,060	979,889	111,954
1906.....	1,171,359	603,590	—	1,911,611	968,702	108,148
1907 (9 mos.)...	867,798	625,812	—	1,487,495	693,685	94,984
1908.....	1,224,510	1,218,242	—	2,088,416	956,196	180,399
1909.....	1,240,364	1,403,569	—	3,283,265	951,728	247,659
1910.....	1,246,695	983,380	—	4,268,390	1,148,048	236,455
1911.....	1,292,402	1,319,905	2,256,709	4,463,095	760,734	244,275
1912.....	1,300,514	2,771,636	1,901,494	4,774,678	843,857	261,719
1913.....	1,335,243	2,647,879	2,086,049	5,109,459	921,953	383,343
1914.....	1,399,457	3,224,780	2,006,150	5,607,795	1,229,519	470,507
1915.....	1,469,504	3,618,488	1,289,022	6,157,967	1,465,361	470,194
1916.....	1,477,238	3,452,154	1,154,426	6,408,857	1,115,303	462,787
1917.....	1,484,632	3,614,844	1,237,230	6,466,359	1,050,156	390,873

Fiscal Year.	Miscellaneous expenditure.					
	Immigra- tion.	Quaran- tine.	Indians.	Labour.	Legisla- tion.	Light- house and coast service.
	\$	\$	\$	\$	\$	\$
1901.....	444,730	170,166	1,019,329	—	1,172,726	578,618
1902.....	494,842	264,738	1,057,130	—	991,433	696,311
1903.....	642,914	263,331	1,077,815	—	789,205	964,144
1904.....	744,788	217,765	1,079,781	—	1,266,795	1,275,017
1905.....	972,357	302,758	1,173,864	—	1,713,172	2,507,307
1906.....	842,668	624,758	1,198,350	—	1,351,916	2,530,308
1907 (9 mos.)...	611,201	395,907	940,680	—	1,322,075	2,026,642
1908.....	1,074,697	150,048	1,276,964	—	1,150,610	2,835,543
1909.....	979,326	121,665	1,307,245	—	1,543,328	2,721,802
1910.....	960,676	138,136	1,287,404	—	1,837,348	2,127,944
1911.....	1,079,130	237,999	1,449,961	93,402	1,655,419	1,979,838
1912.....	1,365,000	182,392	1,756,565	53,399	2,439,807	2,128,243
1913.....	1,427,112	204,332	1,818,187	68,476	1,379,130	2,262,735
1914.....	1,893,298	220,928	2,182,471	80,474	1,403,189	2,324,103
1915.....	1,658,182	232,875	2,400,630	63,441	2,376,984	2,583,026
1916.....	1,307,480	203,309	2,190,333	56,742	1,180,363	1,937,759
1917.....	1,181,991	266,098	1,951,495	57,565	1,651,743	1,769,249

## PUBLIC ACCOUNTS.

## 4.—Details of Expenditure on Consolidated Fund Account, 1901-1917—con.

Fiscal Year.	Miscellaneous expenditure.						
	Mail subsidies and steamship subventions.	Marine hospitals.	Militia and defence.	Mounted police.	North-west Territories government.	Ocean and river service.	Penitentiaries.
	\$	\$	\$	\$	\$	\$	\$
1901.....	629,198	36,141	2,061,674	912,151	504,388	283,162	456,351
1902.....	624,956	51,827	2,060,979	948,216	491,924	496,191	438,073
1903.....	799,286	48,750	1,963,009	990,035	802,466	417,137	477,840
1904.....	851,748	50,302	2,252,030	949,784	894,151	566,547	418,846
1905.....	1,027,075	51,732	2,650,700	1,013,309	1,259,412	1,052,677	463,720
1906.....	1,227,560	50,731	4,294,125	1,004,079	259,520	1,013,683	527,884
1907 (9 mos.)	1,128,877	38,156	3,347,038	647,836	4,236	679,155	423,263
1908.....	1,590,384	67,585	5,498,184	649,867	5,965	881,221	594,619
1909.....	1,684,683	56,994	5,221,645	663,783	4,305	1,201,805	545,113
1910.....	1,736,373	66,349	4,679,956	676,637	4,956	803,922	538,203
1911.....	1,918,941	56,164	6,868,651	713,813	5,744	869,164	527,761
1912.....	1,904,514	57,016	7,580,600	696,663	5,597	1,128,908	653,483
1913.....	1,952,525	53,690	9,112,475	783,888	3,494	1,121,200	704,831
1914.....	2,383,687	55,909	11,151,399	963,651	3,666	1,216,278	910,413
1915.....	2,162,633	65,801	10,060,618	952,018	2,870	1,133,717	860,031
1916.....	1,768,757	66,741	4,681,503	1,395,022	5,232	1,213,918	903,318
1917.....	1,900,522	66,817	4,331,785	1,179,670	5,148	1,113,872	913,208

Fiscal Year.	Miscellaneous expenditure.					
	Pensions.	Police.	Public works.	Railways and canals.	Scientific institutions.	Steamboat inspection.
	\$	\$	\$	\$	\$	\$
1901.....	93,551	68,981	3,386,632	210,414	90,551	29,248
1902.....	83,305	60,241	4,221,294	272,296	155,285	27,494
1903.....	87,925	28,280	4,065,553	328,316	126,754	30,172
1904.....	113,495	31,084	4,607,330	400,892	125,124	33,009
1905.....	140,424	34,220	6,765,446	489,751	163,727	50,188
1906.....	179,023	37,265	7,484,716	452,058	284,272	37,576
1907 (9 mos.)...	125,832	29,269	5,520,571	390,210	292,824	32,460
1908.....	187,557	43,323	8,721,327	730,312	576,818	42,210
1909.....	191,533	44,937	12,300,184	987,692	553,921	41,227
1910.....	216,698	51,808	7,261,218	805,975	633,785	40,783
1911.....	240,586	64,484	8,621,431	635,018	378,130	42,818
1912.....	245,045	82,445	10,344,487	763,007	447,350	45,353
1913.....	283,188	97,951	13,468,505	667,356	417,391	54,148
1914.....	311,900	119,892	19,007,513	732,348	490,541	63,714
1915.....	358,558	118,995	19,343,532	727,206	501,431	65,063
1916.....	671,133	116,665	12,039,252	671,590	463,494	64,884
1917.....	2,814,546	128,505	8,633,096	750,525	434,755	67,560

## FINANCE.

## 4.—Details of Expenditure on Consolidated Fund Account, 1901-1917—concluded.

Fiscal Year.	Miscellaneous expenditure.					
	Subsidies to provinces.	Super-annuation.	Various expenses.	Yukon Territory.	Total miscellaneous.	Total expenditure.
	\$	\$	\$	\$	\$	\$
1901 .....	4,250,607	324,507	326,236	274,954	20,872,966	46,866,368
1902 .....	4,402,098	338,764	1,159,621	266,932	23,942,961	50,759,392
1903 .....	4,402,503	346,419	543,178	807,807	23,667,167	51,691,903
1904 .....	4,402,292	355,424	975,776	638,388	26,286,625	55,612,833
1905 .....	4,516,038	353,261	796,243	476,228	32,558,441	63,319,683
1906 .....	6,726,373	356,281	964,184	405,735	36,616,476	67,240,641
1907 (9 mos.) ...	6,745,134	269,347	576,004	294,023	29,610,514	51,542,161
1908 .....	9,032,775	372,842	777,232	394,597	42,322,443	76,641,452
1909 .....	9,117,143	390,319	1,388,504	353,973	48,547,712	84,064,232
1910 .....	9,361,388	406,877	852,553	330,431	42,702,388	79,411,747
1911 .....	9,092,472	405,342	1,129,453	303,675	48,706,518	87,774,198
1912 .....	10,281,045	417,045	1,307,691	324,242	56,033,798	98,161,441
1913 .....	13,211,800	436,396	2,252,046	295,394	64,560,182	112,059,537
1914 .....	11,280,469	443,557	2,022,174	347,917	73,547,700	127,384,473
1915 .....	11,451,673	461,699	2,961,409	340,043	75,352,970	135,523,207
1916 .....	11,451,673	454,342	1,263,134	344,572	58,521,984	130,350,727
1917 .....	11,469,148	458,927	1,298,042	339,971	57,028,489	148,599,343

## 5.—Expenditure on Consolidated Fund Account, 1868-1917.

Fiscal Year.	Charges on debt.	Subsidies to provinces.	Sinking funds.	Collection of revenue.	Other expenditure.	Total expenditure.
	\$	\$	\$	\$	\$	\$
1868 .....	4,860,758	2,753,966	355,267	1,885,804	3,630,298	13,486,093
1869 .....	5,372,670	2,604,050	426,807	2,175,071	3,459,486	14,038,084
1870 .....	5,387,054	2,588,605	126,533	2,351,725	3,891,593	14,345,510
1871 .....	5,591,959	2,624,940	421,666	2,388,359	4,596,158	15,623,082
1872 .....	5,603,643	2,930,113	470,607	2,912,107	5,672,999	17,589,469
1873 .....	5,387,850	2,921,400	407,827	3,633,152	6,824,419	19,174,648
1874 .....	5,989,121	3,752,757	513,920	5,019,139	8,041,380	23,316,317
1875 .....	6,817,991	3,750,962	555,773	4,904,875	7,683,470	23,713,071
1876 .....	6,609,051	3,690,355	822,953	5,009,081	8,356,932	24,488,372
1877 .....	7,005,103	3,655,851	828,374	5,285,419	6,744,555	23,519,302
1878 .....	7,240,970	3,472,808	945,746	5,388,753	6,454,881	23,503,158
1879 .....	7,472,658	3,442,764	1,037,220	5,652,935	6,849,805	24,455,382
1880 .....	8,062,954	3,430,846	1,165,867	5,374,917	6,816,050	24,850,634

## PUBLIC ACCOUNTS.

## 5.—Expenditure on Consolidated Fund Account, 1868-1917—concluded.

Fiscal Year.	Charges on debt.	Subsidies to Provinces.	Sinking Funds.	Collection of revenue.	Other expenditure.	Total expenditure.
	\$	\$	\$	\$	\$	\$
1881.....	7,819,589	3,455,518	1,250,731	5,750,899	7,225,817	25,502,554
1882.....	7,935,848	3,530,999	1,290,725	6,097,969	8,211,563	27,067,104
1883.....	7,902,722	3,606,673	1,344,137	6,738,502	9,138,123	28,730,157
1884.....	7,930,086	3,603,714	1,403,864	7,042,625	11,127,417	31,107,706
1885.....	9,806,978	3,959,327	1,482,051	7,372,603	12,416,101	35,037,060
1886.....	10,483,930	4,182,250	1,606,271	7,808,751	14,930,134	39,011,612
1887.....	9,970,671	4,169,341	1,592,953	8,376,027	11,548,688	35,657,680
1888.....	10,166,905	4,188,514	1,939,078	8,789,764	11,634,234	36,718,495
1889.....	10,422,522	4,051,428	1,736,644	8,873,339	11,833,902	36,917,835
1890.....	9,887,250	3,904,922	1,887,237	9,182,941	11,131,681	35,994,031
1891.....	9,846,205	3,903,757	1,938,079	9,453,320	11,202,207	36,343,568
1892.....	9,947,916	3,935,914	2,027,861	9,426,067	11,428,136	36,765,894
1893.....	10,020,682	3,935,765	2,095,514	8,993,925	11,768,167	36,814,053
1894.....	10,393,572	4,206,653	2,131,361	9,132,616	11,720,821	37,585,025
1895.....	10,745,245	4,250,674	2,002,311	9,129,416	12,004,359	38,132,005
1896.....	10,751,006	4,235,664	2,055,288	9,291,169	10,616,015	36,949,142
1897.....	10,960,977	4,238,059	2,101,814	9,336,916	11,711,994	38,349,760
1898.....	10,716,645	4,327,372	2,359,969	9,469,664	12,048,876	38,832,526
1899.....	11,028,369	4,250,636	2,482,435	9,837,453	14,304,557	41,903,500
1900.....	10,873,673	4,250,608	2,465,640	11,044,526	14,340,832	42,975,279
1901.....	10,970,783	4,250,607	2,480,337	12,503,249	16,661,392	40,866,368
1902.....	11,186,800	4,402,098	2,569,381	13,007,865	19,593,248	50,759,392
1903.....	11,297,812	4,402,503	2,620,588	14,041,041	19,329,959	51,691,903
1904.....	11,410,881	4,402,292	2,315,066	15,593,521	21,891,073	55,612,833
1905.....	10,906,187	4,516,039	2,261,618	17,593,437	28,042,402	63,319,683
1906.....	11,146,232	6,726,373	2,317,437	17,145,129	29,905,470	67,240,641
1907 (9 mos.)..	6,944,461	6,745,134	1,177,147	13,797,181	22,878,238	51,542,161
1908.....	11,324,287	9,032,775	2,234,263	20,727,329	33,322,798	76,641,452
1909.....	11,931,537	9,117,143	1,922,525	21,632,704	39,460,323	84,064,232
1910.....	13,456,454	9,361,388	1,441,031	21,811,195	33,341,679	79,411,747
1911.....	12,910,698	9,092,472	1,203,416	24,951,636	39,615,976	87,774,198
1912.....	12,706,853	10,281,045	1,156,456	28,256,780	45,760,307	98,161,441
1913.....	13,089,495	13,211,800	1,334,285	33,006,200	51,367,757	112,059,537
1914.....	13,353,519	11,280,469	1,371,428	39,084,656	62,294,401	127,384,473
1915.....	16,188,067	11,451,673	1,645,812	42,232,953	64,004,702	135,523,207
1916.....	21,857,112	11,451,673	1,773,021	47,902,301	47,366,620	130,350,727
1917.....	36,298,954	11,469,148	1,471,697	53,800,203	45,559,341	148,599,343



## FINANCE.

## 6.—Total Expenditure of Canada, 1868-1917.

Fiscal Year.	Expenditure chargeable to consolidated fund.	Expenditure chargeable to capital.	Expenditure for railway subsidies.	Other charges.	Total expenditure.
	\$	\$	\$	\$	\$
1868.....	13,486,093	548,438	—	37,158	14,071,689
1869.....	14,038,084	440,418	—	429,664	14,908,166
1870.....	14,345,510	3,515,116	—	155,988	18,016,614
1871.....	15,623,082	3,670,397	—	—	19,293,479
1872.....	17,589,469	7,853,050	—	223,456	25,665,975
1873.....	19,174,648	19,859,441	—	5,719	39,039,808
1874.....	23,316,317	10,177,740	—	4,019	33,498,076
1875.....	23,713,071	6,922,742	—	2,253,098	32,888,911
1876.....	24,488,372	7,154,008	—	315,764	31,958,144
1877.....	23,519,302	7,599,710	—	1,388,984	32,507,996
1878.....	23,503,153	6,657,200	—	335,413	30,545,771
1879.....	24,455,382	5,648,332	—	676,225	30,779,939
1880.....	24,850,634	8,241,174	—	949,948	34,041,756
1881.....	25,502,554	8,176,316	—	117,772	33,796,642
1882.....	27,067,104	7,405,637	—	201,884	34,674,625
1883.....	28,730,157	14,147,360	—	21,369	42,898,886
1884.....	31,107,706	23,977,702	208,000	2,567,453	57,860,861
1885.....	35,037,060	13,220,185	403,245	502,588	49,163,078
1886.....	39,011,612	9,589,734	2,701,249	10,534,974	61,837,569
1887.....	35,657,680	4,439,939	1,406,533	—	41,504,152
1888.....	36,718,495	7,162,964	1,027,042	155,623	45,064,124
1889.....	36,917,835	4,420,314	846,722	1,333,327	43,518,198
1890.....	35,994,031	4,053,159	1,678,196	44,947	41,770,333
1891.....	36,343,568	3,115,860	1,265,706	68,074	40,793,208
1892.....	36,765,894	2,164,457	1,248,216	2,093,569	42,272,136
1893.....	30,814,053	3,088,318	811,394	139,963	40,853,728
1894.....	37,585,025	3,862,970	1,229,885	330,353	43,008,233
1895.....	38,132,005	3,030,490	1,310,549	399,294	42,872,338
1896.....	36,949,142	3,781,311	3,228,746	137,185	44,096,384
1897.....	38,349,760	3,523,160	416,955	682,881	42,972,756
1898.....	38,832,526	4,143,503	1,414,935	943,317	45,334,281
1899.....	41,903,500	5,936,343	3,201,220	501,571	51,542,634
1900.....	42,975,279	7,468,843	725,720	1,547,624	52,717,466
1901.....	46,866,368	7,695,488	2,512,329	908,681	57,982,866
1902.....	50,759,392	10,078,638	2,093,939	1,038,831	63,970,800
1903.....	51,691,903	7,052,725	1,463,222	1,538,722	61,746,572
1904.....	55,612,833	7,881,719	2,046,878	6,713,618	72,255,048
1905.....	63,319,683	11,933,492	1,275,630	2,275,334	78,804,139
1906.....	67,240,641	11,913,871	1,637,574	2,485,555	83,277,641
1907 (9 mos.)...	51,512,161	11,329,144	1,421,890	1,581,944	65,778,139
1908.....	76,641,452	30,429,907	2,037,629	3,469,692	112,578,680
1909.....	84,064,232	42,593,167	1,785,887	4,998,238	133,441,524
1910.....	79,411,747	29,756,353	2,048,097	4,179,577	115,395,774
1911.....	87,774,198	30,852,963	1,284,892	2,949,197	122,861,250
1912.....	98,161,441	30,939,576	859,400	7,181,665	137,142,082
1913.....	112,059,537	27,206,046	4,935,507	255,787	144,456,877
1914.....	127,384,473	37,180,176	19,036,237	2,640,162	186,241,048
1915.....	135,523,207	41,447,320	5,191,507	65,936,492	248,098,526
1916.....	130,350,727	38,566,950	1,400,171	169,384,654	339,702,502
1917.....	148,599,343	26,919,301	959,584	321,864,160	498,342,388

## PUBLIC ACCOUNTS.

## 7.—Total Receipts of Canada, 1868-1917.

Fiscal Year.	Consolidated fund receipts.	Other receipts.	Total receipts.	Sinking funds.	Difference between receipts and expenditure less sinking funds.
	\$	\$	\$	\$	\$
1868.....	13,687,928	—	13,687,928	355,267	28,494
1869.....	14,379,175	—	14,379,175	426,807	102,184
1870.....	15,512,226	27,431	15,539,657	126,533	2,350,423
1871.....	19,335,561	39,476	19,375,037	421,666	+503,225
1872.....	20,714,814	—	20,714,814	470,607	4,480,554
1873.....	20,813,469	157,122	20,970,591	407,827	17,661,390
1874.....	24,205,093	302,560	24,507,653	513,920	8,476,503
1875.....	24,648,715	1,009	24,649,724	555,773	7,683,414
1876.....	22,587,587	4,468	22,592,055	822,953	8,543,136
1877.....	22,059,274	868,486	22,927,760	896,440	8,683,795
1878.....	22,375,011	31,246	22,406,257	1,012,753	7,126,761
1879.....	22,517,382	4,503,143	27,020,525	1,131,296	2,628,117
1880.....	23,307,407	57,140	23,364,547	1,215,808	9,461,401
1881.....	29,635,298	—	29,635,298	1,217,153	2,944,192
1882.....	33,383,456	1,799,093	35,182,549	1,226,206	+1,734,130
1883.....	35,794,650	1,009,019	36,803,669	1,290,153	4,805,064
1884.....	31,861,962	953,264	32,815,226	1,350,500	23,695,136
1885.....	32,797,001	557,040	33,354,041	2,563,195	14,245,842
1886.....	33,177,040	302,843	33,479,883	1,606,271	26,751,415
1887.....	35,754,993	538	35,755,531	1,592,953	4,155,668
1888.....	35,908,464	—	35,908,464	1,939,078	7,216,583
1889.....	38,782,870	—	38,782,870	1,736,644	2,998,684
1890.....	39,879,925	—	39,879,925	1,887,237	3,170
1891.....	38,579,311	—	38,579,311	1,938,079	275,819
1892.....	36,921,872	—	36,921,872	2,027,861	3,322,404
1893.....	38,168,609	40,000	38,208,609	2,095,514	549,605
1894.....	36,374,693	190	36,374,883	2,131,361	4,501,990
1895.....	33,978,129	—	33,978,129	2,002,311	6,891,898
1896.....	36,618,591	—	36,618,591	2,055,288	5,422,506
1897.....	37,829,778	—	37,829,778	2,101,814	3,041,164
1898.....	40,555,238	1,272	40,556,510	2,359,969	2,417,802
1899.....	46,741,249	1,854	46,743,103	2,482,485	2,317,048
1900.....	51,029,994	1,473	51,031,467	2,465,640	+779,640
1901.....	52,514,701	1,632	52,516,333	2,480,337	2,986,197
1902.....	58,050,790	1,543	58,052,333	2,569,381	3,349,086
1903.....	66,037,069	3,311,015	69,348,084	2,620,588	+10,222,101
1904.....	70,669,817	9,434	70,679,251	2,315,066	+739,270
1905.....	71,182,773	3,300	71,186,073	2,261,618	5,356,448
1906.....	80,139,360	2,034	80,141,394	2,317,437	818,811
1907 (9 mos.)...	67,969,328	2,781	67,972,109	1,177,147	+3,371,118
1908.....	96,054,506	911	96,055,417	2,234,263	14,289,000

NOTE.—The plus (+) sign in the last column of this table denotes the excess of receipts and sinking funds over expenditure. In other cases the expenditure exceeds receipts.

## FINANCE.

## 7.—Total Receipts of Canada, 1868-1917—concluded.

Fiscal Year.	Consolidated fund receipts.	Other receipts.	Total receipts.	Sinking Funds.	Difference between receipts and expenditure less sinking funds.
	\$	\$	\$	\$	\$
1909.....	85,093,404	456,176	85,549,580	1,922,525	45,969,419
1910.....	101,503,711	112,765	101,616,476	1,441,031	12,338,267
1911.....	117,780,409	103,919	117,884,328	1,203,416	3,773,506
1912.....	136,108,217	—	136,108,217	1,156,456	+122,591
1913.....	168,689,903	524	168,690,427	1,384,285	+25,617,835
1914.....	163,174,395	—	163,174,395	1,371,428	21,695,224
1915.....	133,073,482	—	133,073,482	1,645,812	113,379,232
1916.....	172,147,838	1,555	172,149,393	1,773,021	165,780,088
1917.....	232,601,294	—	232,601,294	1,471,697	264,269,397

NOTE.—The plus (+) sign in the last column of this table denotes the excess of receipts and sinking funds over expenditure. In other cases the expenditure exceeds receipts.

## 8.—Population and Revenue and Expenditure per head, 1871-1917.

Year.	Population	Revenue per head.	Expenditure per head.	Year.	Population	Revenue per head.	Expenditure per head.
	No.	\$ cts.	\$ cts.		No.	\$ cts.	\$ cts.
*1871.....	3,485,761	5.55	4.48	1894.....	4,894,000	7.29	7.54
1871.....	3,518,000	5.50	4.44	1895.....	5,034,000	6.75	7.58
1872.....	3,611,000	5.74	4.87	1896.....	5,086,000	7.20	7.26
1873.....	3,668,000	5.67	5.23	1897.....	5,142,000	7.36	7.46
1874.....	3,825,000	6.33	6.10	1898.....	5,199,000	7.80	7.47
1875.....	3,887,000	6.34	6.10	1899.....	5,259,000	8.89	7.97
1876.....	3,949,000	5.70	6.20	1900.....	5,322,000	9.59	8.07
1877.....	4,013,000	5.50	5.86	*1901.....	5,371,315	9.78	8.72
1878.....	4,079,000	5.49	5.76	1901.....	5,403,000	9.72	8.67
1879.....	4,146,000	5.43	5.90	1902.....	5,532,000	10.49	9.18
1880.....	4,215,000	5.53	5.90	1903.....	5,673,000	11.64	9.11
*1881.....	4,324,810	6.85	5.90	1904.....	5,825,000	12.13	9.55
1881.....	4,337,000	6.83	5.88	1905.....	5,992,000	11.88	10.57
1882.....	4,384,000	7.62	6.18	1906.....	6,171,000	12.99	10.90
1883.....	4,433,000	8.08	6.48	1907.....	6,302,000	10.71	8.18
1884.....	4,485,000	7.11	6.94	1908.....	6,491,000	14.80	11.81
1885.....	4,539,000	7.23	7.72	1909.....	6,695,000	12.71	12.56
1886.....	4,589,000	7.23	8.50	1910.....	6,917,000	14.67	11.48
1887.....	4,638,000	7.71	7.69	*1911.....	7,206,643	16.20	12.18
1888.....	4,688,000	7.66	7.84	1911.....	7,158,000	16.47	12.26
1889.....	4,740,000	8.19	7.79	1912.....	7,343,000	18.54	13.37
1890.....	4,793,000	8.33	7.52	1913.....	7,530,000	22.40	14.88
*1891.....	4,833,239	7.98	7.52	1914.....	7,725,000	21.12	16.49
1891.....	4,844,000	7.96	7.50	1915.....	7,928,000	16.78	17.09
1892.....	4,889,000	7.55	7.52	1916.....	8,140,000	21.14	16.01
1893.....	4,936,000	7.73	7.46	1917.....	8,361,000	27.82	17.77

NOTE.—The years marked with an asterisk(\*) are those of the Census, April 2, 1871, April 4, 1881, April 6, 1891, April 1, 1901, June 1, 1911. In all other cases the population is estimated at the close of each fiscal year: June 30 from 1871 to 1906 and March 31 from 1907 to 1917. The fiscal period of 1907 is for the nine months ended March 31.

## PUBLIC ACCOUNTS.

## 9.—Public Debt of Canada July 1, 1867, to March 31, 1917.

Fiscal Year.	Total debt.	Total assets.	Net debt.	Interest on debt.	Interest from investments.
	\$	\$	\$	\$	\$
1867	93,046,052	17,317,410	75,728,642	—	—
1868	96,896,666	21,139,531	75,757,135	4,501,568	126,420
1869	112,361,998	36,502,679	75,859,319	4,907,014	313,021
1870	115,993,706	37,783,964	78,209,742	5,047,054	383,956
1871	115,492,683	37,786,165	77,706,518	5,165,304	554,384
1872	122,400,179	40,213,107	82,187,072	5,257,231	488,042
1873	129,743,432	29,894,970	99,848,462	5,209,206	396,404
1874	141,163,551	32,838,587	108,324,964	5,724,436	610,863
1875	151,663,402	35,655,024	116,008,378	6,590,790	840,887
1876	161,204,688	36,653,174	124,551,514	6,400,902	798,906
1877	174,675,835	41,440,526	133,235,309	6,797,227	717,684
1878	174,957,269	34,595,199	140,362,070	7,048,884	605,774
1879	179,483,871	36,493,684	142,990,187	7,194,734	592,500
1880	194,634,441	42,182,852	152,451,589	7,773,869	834,793
1881	199,861,537	44,465,757	155,395,780	7,594,145	751,513
1882	205,365,252	51,703,601	153,661,651	7,740,804	914,009
1883	202,159,104	43,692,390	158,466,714	7,668,552	1,001,193
1884	242,482,416	60,320,566	182,161,850	7,700,181	986,698
1885	264,703,607	68,295,915	196,407,692	9,419,482	1,997,036
1886	273,164,341	50,005,234	223,159,107	10,137,009	2,299,079
1887	273,187,626	45,872,851	227,314,775	9,682,929	990,887
1888	284,513,842	49,982,484	234,531,358	9,823,313	932,025
1889	287,722,063	50,192,021	237,530,042	10,148,932	1,305,392
1890	286,112,295	48,579,083	237,533,212	9,656,841	1,082,271
1891	289,899,230	52,090,199	237,809,031	9,584,137	1,077,228
1892	295,333,274	54,201,840	241,131,434	9,763,978	1,086,420
1893	300,054,525	58,373,485	241,681,040	9,806,888	1,150,167
1894	308,348,023	62,164,994	246,183,029	10,212,596	1,217,809
1895	318,048,755	64,973,828	253,074,927	10,466,294	1,336,047
1896	325,717,537	67,220,104	258,497,433	10,502,430	1,370,001
1897	332,530,131	70,991,535	261,538,596	10,645,663	1,443,004
1898	338,375,984	74,419,585	263,956,399	10,516,758	1,513,655
1899	345,160,903	78,887,456	266,273,447	10,855,112	1,590,448
1900	346,206,980	80,713,173	265,493,807	10,699,645	1,683,051
1901	354,732,433	86,252,429	268,480,004	10,807,955	1,784,834
1902	366,358,477	94,529,387	271,829,090	10,975,935	1,892,224
1903	361,344,098	99,737,109	261,606,989	11,068,139	2,020,953
1904	364,962,512	104,094,793	260,867,719	11,128,637	2,236,256
1905	377,678,580	111,454,413	266,224,167	10,630,115	2,105,031
1906	392,269,680	125,226,703	267,042,977	10,814,697	2,140,312
1907 (9 mos.)	379,966,826	116,294,966	263,671,860	6,712,771	1,235,746
1908	408,207,158	130,246,298	277,960,860	10,973,597	1,925,569
1909	478,535,427	154,605,148	323,930,279	11,604,584	2,256,643
1910	470,663,046	134,394,500	336,268,546	13,098,161	2,807,465
1911	474,941,487	134,899,435	340,042,052	12,535,851	1,668,773
1912	508,338,592	168,419,131	339,919,461	12,259,397	1,281,317
1913	483,232,555	168,930,930	314,301,625	12,605,882	1,430,511
1914	544,391,369	208,394,519	335,996,850	12,893,505	1,964,541
1915	700,473,814	251,097,731	449,376,083	15,736,743	2,980,247
1916	936,987,802	321,831,631	615,156,171	21,421,585	3,358,210
1917	1,382,003,268	502,816,970	879,186,298	35,802,567	3,094,012



## FINANCE.

10.—Assets of the Public Debt of Canada, July 1, 1867, to March 31, 1917.

Fiscal Year.	Sinking funds.	Other investments.	Province accounts.	Miscellaneous accounts.	Total assets.
	\$	\$	\$	\$	\$
1867.....	1,207,222	4,573,560	10,045,534	1,486,094	17,317,410
1868.....	1,562,489	4,573,957	11,723,359	3,279,726	21,139,531
1869.....	1,989,296	13,318,757	14,776,812	6,387,814	36,502,679
1870.....	2,115,829	11,125,437	17,193,581	7,349,114	37,783,964
1871.....	2,537,495	9,369,952	19,126,531	6,752,187	37,786,165
1872.....	3,450,482	7,468,892	20,901,517	8,392,216	40,213,107
1873.....	3,598,422	5,717,694	11,537,690	9,041,164	29,894,970
1874.....	4,112,348	6,313,565	11,524,638	10,888,036	32,838,587
1875.....	4,668,122	7,119,181	11,521,698	12,346,023	35,655,024
1876.....	5,491,075	9,157,464	11,974,808	10,029,827	36,653,174
1877.....	6,387,515	7,786,874	12,367,516	14,898,621	41,440,526
1878.....	7,400,268	4,551,638	12,274,893	10,368,400	34,595,199
1879.....	8,531,565	4,152,655	13,030,019	10,779,445	36,493,684
1880.....	9,747,373	5,932,434	13,535,092	12,967,953	42,182,852
1881.....	10,964,526	6,798,964	13,314,115	13,388,152	44,465,757
1882.....	12,190,732	11,443,104	13,013,286	15,056,479	51,703,601
1883.....	12,941,658	7,850,895	13,146,291	9,753,546	43,692,390
1884.....	14,292,158	28,337,491	7,499,069	10,191,848	60,320,566
1885.....	15,855,353	34,497,966	7,502,724	10,439,872	68,295,915
1886.....	17,461,624	8,249,817	7,508,755	16,785,038	50,005,234
1887.....	19,054,577	8,874,106	7,518,402	10,425,766	45,872,851
1888.....	20,993,651	10,549,696	7,545,150	10,893,984	49,982,484
1889.....	22,730,299	9,749,155	7,973,556	9,739,011	50,192,021
1890.....	24,617,536	6,179,281	9,412,337	8,369,929	48,579,083
1891.....	26,555,614	6,199,581	9,910,524	9,424,480	52,090,199
1892.....	28,583,475	5,179,536	10,412,417	10,026,412	54,201,840
1893.....	30,678,989	5,263,138	10,921,106	11,510,252	58,373,485
1894.....	32,356,777	5,263,138	10,917,856	13,627,223	62,164,994
1895.....	34,359,088	5,487,462	10,923,487	14,203,791	64,973,828
1896.....	36,414,376	6,077,628	10,586,399	14,141,701	67,220,104
1897.....	38,516,189	6,261,528	10,606,052	15,607,766	70,991,535
1898.....	40,876,158	6,371,528	10,603,211	16,568,688	74,419,585
1899.....	43,358,643	6,371,528	10,671,783	18,485,502	78,887,456
1900.....	45,824,282	6,769,528	10,718,484	17,400,879	80,713,173
1901.....	48,304,619	7,062,836	10,718,474	20,166,500	86,252,429
1902.....	50,874,000	7,508,077	10,718,461	25,428,849	94,529,387
1903.....	53,494,588	8,428,962	4,144,218	33,669,341	99,737,109
1904.....	44,770,876	13,801,928	4,119,591	41,402,398	104,094,793
1905.....	47,632,494	12,691,310	4,048,796	47,681,813	111,454,413
1906.....	48,016,410	12,576,241	4,033,705	60,600,347	125,226,703
1907 (9 mos).....	45,981,552	13,223,804	4,033,705	53,055,905	116,294,966
1908.....	42,250,200	22,949,146	4,033,705	61,013,238	130,246,298
1909.....	38,515,547	22,144,989	2,296,429	91,643,183	154,605,148
1910.....	14,782,613	26,216,852	2,296,429	91,098,606	134,394,500
1911.....	11,196,826	27,501,851	2,296,429	93,904,329	134,899,435
1912.....	12,353,282	30,551,851	2,296,333	123,217,665	168,419,131
1913.....	13,737,567	43,885,325	2,296,328	109,011,710	168,930,930
1914.....	9,144,995	70,819,658	2,296,328	126,133,538	208,394,519
1915.....	10,790,807	111,719,684	2,296,328	126,290,912	251,097,731
1916.....	12,563,828	109,937,419	2,296,328	197,034,056	321,831,631
1917.....	14,035,525	148,586,596	2,296,328	337,898,521	502,816,970

## PUBLIC ACCOUNTS.

## 11.—Total Liabilities of Canada, July 1, 1867, to March 31, 1917.

Fiscal Year.	Funded debt payable in London.	Funded debt payable in Canada.	Dominion notes.	Provincial notes.	Savings banks.
	\$	\$	\$	\$	\$
1867.....	67,069,116	3,999,175	3,113,700	605,859	1,422,047
1868.....	66,795,609	6,016,074	3,793,690	552,326	1,680,126
1869.....	75,847,176	6,950,490	4,830,000	467,743	2,452,119
1870.....	75,847,176	7,758,280	7,479,353	334,301	3,367,072
1871.....	75,811,163	7,828,451	7,367,341	115,092	4,515,446
1872.....	76,486,656	7,974,573	10,510,541	61,685	5,187,586
1873.....	76,137,716	8,190,396	11,284,132	51,028	6,119,691
1874.....	85,798,049	8,914,514	12,175,579	47,013	7,210,261
1875.....	99,961,023	8,398,909	10,778,873	44,665	7,171,181
1876.....	112,133,529	8,123,051	11,533,891	43,229	7,044,118
1877.....	122,477,629	8,308,524	10,680,493	42,527	7,470,631
1878.....	121,244,416	8,933,231	10,460,735	41,846	8,497,013
1879.....	128,307,409	9,998,778	10,789,710	41,397	9,207,683
1880.....	137,024,583	11,595,160	13,565,159	41,040	11,052,956
1881.....	135,601,083	11,580,142	14,538,965	40,810	15,836,672
1882.....	132,122,876	10,901,005	15,807,911	40,595	21,768,662
1883.....	130,187,403	5,924,403	15,997,855	40,359	26,219,108
1884.....	153,157,096	21,988,566	15,360,281	40,237	29,217,537
1885.....	154,105,122	19,930,644	15,633,256	40,164	32,979,076
1886.....	172,247,083	20,382,614	16,297,453	40,084	37,173,814
1887.....	171,675,736	18,749,402	15,059,836	39,881	40,832,275
1888.....	176,691,770	17,572,668	16,249,319	39,792	41,371,058
1889.....	188,239,436	15,511,362	15,426,281	39,768	42,956,358
1890.....	187,616,503	13,674,428	15,357,893	39,744	41,012,465
1891.....	188,040,134	11,833,539	16,176,317	39,625	39,400,026
1892.....	198,804,342	10,362,566	17,282,699	39,585	39,529,548
1893.....	201,615,481	8,218,152	18,448,494	39,570	41,849,656
1894.....	207,275,505	7,181,711	20,061,719	39,534	43,036,012
1895.....	218,225,504	7,095,625	19,520,233	39,520	44,450,499
1896.....	218,225,504	9,708,835	20,372,215	39,475	46,799,319
1897.....	218,225,504	9,188,658	22,318,096	39,438	48,934,976
1898.....	227,958,837	8,992,959	22,178,194	39,429	50,111,119
1899.....	227,958,837	8,812,807	24,236,467	39,429	50,241,715
1900.....	227,958,837	8,676,767	26,094,924	39,424	53,149,722
1901.....	227,958,837	8,554,355	27,671,452	39,420	56,048,957
1902.....	227,958,837	9,007,611	32,780,387	39,407	58,437,989
1903.....	227,958,837	8,886,981	39,006,199	39,407	60,771,129
1904.....	209,479,619	7,478,081	41,574,783	39,407	62,158,450
1905.....	209,520,233	7,450,949	47,334,222	39,407	62,017,457
1906.....	204,738,351	7,838,716	49,941,427	39,361	61,910,622
1907 (9 mos).....	207,627,691	7,301,116	54,794,597	39,361	62,541,812
1908.....	221,809,568	7,176,416	60,455,991	39,361	62,581,155
1909.....	277,810,963	4,769,616	79,351,081	39,286	59,938,920
1910.....	257,451,959	4,819,116	87,134,069	39,273	58,264,230
1911.....	271,050,678	4,795,066	89,994,270	39,239	58,094,331
1912.....	282,024,279	4,730,878	113,329,633	39,225	58,219,328
1913.....	258,679,819	2,190,768	112,101,886	39,220	57,140,483
1914.....	302,842,485	719,003	117,795,639	39,220	55,567,603
1915.....	338,369,979	691,503	157,056,119	39,220	54,001,718
1916.....	362,703,312	100,298,603	177,943,132	39,220	53,528,426
1917.....	362,703,312	340,385,810	183,248,987	39,220	56,216,087

## FINANCE.

## 11.—Total Liabilities of Canada, July 1, 1867, to March 31, 1917—concluded.

Fiscal Year.	Compensation to Seigneurs.	Temporary loans.	Trust funds.	Province accounts.	Miscellaneous account.	Total liabilities.
	\$	\$	\$	\$	\$	\$
1867.....	3,869,810	—	6,408,780	2,573,293	3,984,272	93,046,052
1868.....	3,869,810	—	6,454,799	3,499,678	4,227,244	96,896,666
1869.....	3,869,810	6,575,410	6,477,618	4,664,511	227,115	112,361,998
1870.....	3,860,646	2,224,354	6,535,103	6,224,159	2,353,307	115,993,707
1871.....	3,811,065	—	6,595,678	7,951,628	1,496,819	115,492,683
1872.....	3,725,554	—	6,655,249	10,319,741	1,478,594	122,400,179
1873.....	3,500,594	—	6,686,347	14,477,825	4,321,370	130,778,099
1874.....	3,476,822	—	6,752,847	16,119,309	669,157	141,163,551
1875.....	825,478	—	6,827,524	14,984,382	2,676,367	151,663,402
1876.....	466,388	—	6,881,938	14,384,864	593,679	161,204,688
1877.....	407,061	—	6,899,347	13,910,660	4,478,963	174,675,835
1878.....	400,427	—	6,860,331	13,313,435	5,205,835	174,957,269
1879.....	391,331	—	6,834,477	12,605,299	5,798,670	183,974,754
1880.....	385,840	—	6,893,453	12,569,014	5,998,118	199,125,323
1881.....	394,596	—	6,941,146	12,424,853	2,503,271	199,861,538
1882.....	244,936	—	6,999,035	12,596,072	4,884,160	205,365,252
1883.....	200,085	—	7,003,188	12,573,490	4,013,213	202,159,104
1884.....	198,162	—	7,055,899	14,285,699	1,178,939	242,482,416
1885.....	195,379	18,985,908	7,041,841	14,219,480	1,572,737	264,703,607
1886.....	188,765	1,262,444	7,060,526	17,310,531	1,201,027	273,164,341
1887.....	188,765	1,241,000	7,080,836	17,282,987	1,036,908	273,187,626
1888.....	179,154	5,651,459	7,098,644	17,194,048	2,555,924	284,513,842
1889.....	181,776	—	7,200,386	16,927,884	1,238,812	287,722,063
1890.....	179,416	1,946,667	8,184,794	16,907,533	1,192,852	286,112,295
1891.....	166,960	7,786,667	8,217,993	16,907,414	1,330,555	289,899,230
1892.....	166,560	—	9,113,817	16,407,374	3,626,783	295,333,274
1893.....	166,310	1,460,000	10,111,141	16,407,360	1,738,361	300,054,525
1894.....	164,732	2,433,333	10,205,366	16,407,324	1,542,787	308,348,023
1895.....	131,387	—	10,263,694	16,407,031	1,915,262	318,048,755
1896.....	124,328	1,946,667	10,314,883	16,406,987	1,779,324	325,717,537
1897.....	117,287	4,866,667	10,409,788	16,406,721	2,023,016	332,530,131
1898.....	78,873	—	10,446,967	16,406,435	2,163,171	338,375,984
1899.....	78,798	3,893,333	10,690,278	16,672,687	2,536,492	345,160,903
1900.....	78,798	—	10,910,056	16,672,687	2,625,767	346,206,980
1901.....	78,029	—	11,305,611	16,672,677	6,403,085	354,732,433
1902.....	76,262	—	11,593,175	16,672,336	9,792,470	366,358,477
1903.....	76,262	—	12,181,524	6,523,165	5,900,594	361,344,098
1904.....	76,262	4,866,667	16,105,439	11,920,688	11,263,136	364,962,512
1905.....	76,262	2,920,000	18,385,824	11,920,668	18,013,558	377,678,580
1906.....	76,108	2,920,000	26,857,181	11,920,684	26,027,230	392,269,680
1907 (9 mos.)..	72,599	1,216,667	13,744,817	11,920,668	20,707,498	379,966,826
1908.....	72,599	9,300,000	14,107,439	11,920,668	20,743,961	408,207,158
1909.....	64,030	13,606,333	13,124,674	11,920,582	17,909,942	478,535,427
1910.....	38,322	17,033,333	13,422,463	11,920,582	20,540,999	470,663,046
1911.....	38,322	—	13,939,187	11,920,582	25,069,812	474,941,487
1912.....	38,092	—	14,727,472	11,920,486	23,309,199	508,338,592
1913.....	38,092	—	15,167,804	11,920,481	25,954,002	483,232,555
1914.....	34,238	8,273,333	15,831,903	11,920,481	31,367,464	544,391,369
1915.....	34,238	81,073,684	15,995,150	11,920,481	41,291,722	700,473,814
1916.....	34,238	182,992,380	15,802,218	11,920,481	31,725,792	936,987,802
1917.....	34,238	300,332,797	16,265,441	11,920,481	110,856,895	1,382,003,268

## PUBLIC ACCOUNTS.

## 12.—Funded Debt payable in London and Canada, March 31, 1916.

Description.	Amount.	Interest payable thereon.	Date of Maturity.
Payable in London.	\$	\$	
4½ per cent. loan of 1920-25...	24,333,333	1,095,000	May 1, 1925 (on or after May 1, 1920, on giving 3 months' notice).
4 per cent. loan of 1940-60....	93,926,667	3,757,066	October 1, 1960 (on or after Oct. 1, 1940, on giving 3 months' notice).
3½ per cent. loan of 1909.....	26,701,842	1 001,319	July 1, 1919 (or after July 1, 1914, the whole or any portion by drawings on giving 3 months' notice).
3½ " " 1884.....	23,467,206	821,352	On giving 6 months' notice or 1st June, 1934.
3½ " " C. P. Ry. land grant .....	15,056,007	526,960	July 1, 1938.
3½ per cent. loan of 1930-50....	137,058,841	4,797,060	July 1, 1950 (or after July 1, 1930, on giving 6 months' notice).
3 " " 1888.....	8,071,230	242,137	July 1, 1938.
3 " " 1892.....	18,250,000	547,500	July 1, 1938.
3 " " 1894.....	10,950,000	328,500	July 1, 1938.
2½ " " 1897.....	4,888,186	122,205	October 1, 1947.
<b>Total.....</b>	<b>362,703,312</b>	<b>13,239,099</b>	
Payable in Canada.			
Province of New Brunswick, 6 per cent. loan debentures...	600	—	Overdue.
Province of Canada, 5 per cent. loan debentures.....	400	—	Overdue.
Dominion stock, issue A, 6 p.c.	8,000	480	Various dates.
" " " A, 3½ "	31,837	1,114	
" " " B, 3½ "	137,400	4,809	
" " " C, 3½ "	48,666	1,703	
" " " 1896, 3½ "	10,000	350	
" " " F, 3½ "	61,150	2,140	July 1, 1925.
Dominion of Canada war loan 1915—25.....5 per cent.	100,000,000	5,000,000	Dec. 1, 1925.
<b>Total.....</b>	<b>100,298,953</b>	<b>5,010,596</b>	

**Provincial Subsidies.**—Tables 13 and 14 show the amounts of the subsidies and other payments made by the Dominion to the Provincial Governments for each of the years 1910 to 1916 (Table 13) and the totals paid from Confederation to date (Table 14). The Provincial subsidies payable by the Dominion Government were originally settled by the British North America Act, 1867 (30 and 31 Vict., c. 3, s. 118), but were revised by the British North America Act, 1907 (7 Edw. VII, c. 11). Under the revised settlement each Provincial Government receives (a) a fixed grant according to population and (b) a grant at the rate of 80 cents per head of the population up to 2,500,000, and at the rate of 60 cents per head of so much of the population as exceeds that number. The province of British Columbia receives an additional



## FINANCE.

grant of \$100,000 per annum for a period of 10 years from 1907<sup>1</sup>. An additional grant of \$100,000 per annum is payable to Prince Edward Island under an act of 1912 (2 Geo. V., c. 42), and the payments to Manitoba were revised by the Extension of Boundaries (Manitoba) Act (2 Geo. V., c. 32). Other payments to the Provincial Governments by the Dominion Government consist of special grants as compensation for lands and allowance for buildings, allowances in lieu of debt, etc.

## 13.—Subsidies and other Payments of Dominion to Provincial Governments, 1911-16.

Provinces.	1911.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	281,932	281,932	381,932	381,932	381,932	381,932
Nova Scotia.....	610,460	636,670	636,666	636,667	636,667	636,667
New Brunswick...	621,361	637,976	637,977	637,976	637,976	637,976
Quebec.....	1,686,579	1,971,705	1,967,554	1,969,639	1,939,630	1,969,630
Ontario.....	2,128,772	2,396,429	2,396,328	2,396,379	2,396,379	2,396,379
Manitoba.....	838,247	833,642	3,643,910	1,478,912	1,406,204	1,406,204
Saskatchewan.....	1,229,975	1,548,189	1,555,453	1,631,248	1,710,675	1,710,675
Alberta.....	1,173,069	1,260,722	1,259,489	1,424,590	1,589,075	1,589,075
British Columbia.	522,077	713,781	732,489	723,135	723,135	723,135
<b>Total.....</b>	<b>9,932,472</b>	<b>10,281,046</b>	<b>13,211,890</b>	<b>11,280,469</b>	<b>11,451,673</b>	<b>11,451,673</b>

NOTE.—For the years 1868-1909, see Canada Year Book 1911, pp. 265-6.

## 14.—Totals of Subsidy Allowances from July 1, 1867, to March 31, 1916.

Provinces.	Allowance for Government.	Allowance per head of Population.	Special Grants <sup>2</sup> .	Interest on Debt Allowance <sup>3</sup> .	Total.
	\$	\$	\$	\$	\$
Prince Edward Island	1,920,000	3,654,710	1,858,466	1,865,843	9,299,028
Nova Scotia.....	4,110,000	15,921,131	826,980	2,232,611	23,090,722
New Brunswick.....	3,620,000	12,287,786	7,080,000	921,266	23,909,052
Quebec.....	4,960,000	48,857,434	—	2,902,500	56,719,934
Ontario.....	5,360,000	61,730,164	—	2,322,643	69,412,807
Manitoba.....	3,315,000	7,602,639	7,101,598	6,482,084	24,501,321
Saskatchewan.....	1,761,666	3,722,022	5,531,250	4,459,125	15,474,063
Alberta.....	1,736,667	3,025,726	5,062,500	4,459,125	14,284,018
British Columbia....	2,760,000	4,744,569	5,400,000	1,321,582	14,226,142
<b>Total.....</b>	<b>29,543,333</b>	<b>161,546,181</b>	<b>32,860,791</b>	<b>26,966,779</b>	<b>250,917,087</b>

<sup>1</sup>See Canada Year Book 1907, pp. xxxiii-iv.

<sup>2</sup>Compensation for lands and allowance for buildings.

<sup>3</sup>Allowance in lieu of debt.

## PUBLIC ACCOUNTS.

## 15.—Coinage at the Ottawa Branch of the Royal Mint in the Calendar Years 1913-16.

Description of Coins.	1913.		1914.	
	Struck.	Issued.	Struck.	Issued.
Gold Sovereigns.....	3,715 or \$18,079.67	3,742 or \$18,211.08	14,891 —	9,077 or \$44,174.72
	\$		\$	\$
Gold—Canadian \$5's	471,700	471,720	145,545.00	145,595.00
“ “ \$10's	1,418,920	1,418,970	1,354,030.00	1,354,110.00
Silver.....	1,316,541.35	1,175,000	843,244.05	734,002.00
Bronze.....	57,333.72	55,600	34,039.37	35,100.00
Description of Coins.	1915.		1916.	
Gold Sovereigns....	— —	13 or \$63.26	6,111 or \$29,740.20	11,035 or \$53,703.66
	\$	\$	\$	\$
Gold—Canadian \$5's	—	55.00	—	—
“ “ \$10's	—	480.00	—	—
Silver.....	184,548.60	206,000.00	1,134,301.00	1,302,000.00
Bronze.....	48,369.66	50,400.00	111,101.42	110,700.00

## INLAND REVENUE.

**Department of Inland Revenue.**—Under the Inland Revenue Act (R.S. 1906, c. 51) the Department has the control and management of the collection of excise duties, of stamp duties, internal taxes, standard weights and measures and of the collection of bridge and ferry tolls and rents. It administers the statutes which deal with the adulteration of food and other articles, electricity and gas inspection, patent medicines, petroleum, naphtha and the analysis of fertilizers and feeding stuffs. The Department also establishes the food standards, which are put into force from time to time by Orders-in-Council under the authority of Section 26 of the Adulteration Act. For the year ended March 31, 1916, the total inland revenue of the Dominion amounted to \$24,452,235, as compared with \$22,084,931 in 1915.

## FINANCE.

**Canadian Excise Tariff.**—The following is a statement of the Canadian excise tariff, as amended by Parliament during the session of August 18-22, 1914:

<b>Spirits—</b>		Tobacco, per lb.....	\$0.10
When made from raw grain, per proof gal.....	\$2.40	Cigarettes, weighing not more than 3 lb. per m., per thousand.....	3.00
When made from malted barley.....	2.42	Cigarettes, weighing more than 3 lb. per m., per thousand.....	8.00
When made from imported molasses or other sweetened matter free of Customs duty, per proof gal.....	2.43	Foreign raw leaf tobacco, unstemmed, per lb.....	0.28
Malt, per lb.....	0.03	Foreign raw leaf tobacco, stemmed, per lb.....	0.42
Malt, imported, crushed or ground per lb.....	0.05	Canada twist tobacco, per lb.....	0.10
Malt liquor when made in whole or part from any other substance than malt, per gal.....	0.15	Snuff, per lb.....	0.10
Vinegar, per proof gal.....	0.04	Cigars, per m.....	3.00
Acetic acid, per proof gal.....	0.04	Cigars when put up in packages of less than 10 each, per m.....	4.00

**Consumption of Alcohol and Tobacco.**—The separate sources of revenue for the years 1911 to 1916 are set out in Table 16. The two largest sources of inland revenue are spirits and tobacco, which in 1916 together accounted for over eighty-four p.c. of the total. Tables 18 and 19 show that the consumption of alcoholic liquors and of tobacco has tended annually to increase, both absolutely and relatively per head of the population, up to the year 1913. For the year 1912-13 the consumption of spirits reached its highest point, viz. 4,999,937 gallons, or 1.112 gallon per head. For the year 1913-14 the consumption of malt liquor rose to its highest point, viz., 56,060,846 gallons, or 7.2 gallons per head of beer. But under the influence of the war and resulting legislation a marked decrease is apparent, and for the year 1915-16 the consumption of spirits fell to 3,629,324 gallons, or 0.745 gallon per head, as against 4,021,090 gallons, or 0.872 gallon per head in 1914-15 and 4,762,618 gallons, or 1.061 gallon per head in 1913-14. The consumption per head of wine was 0.062 gallon in 1915-16, as against 0.095 gallon in 1914-15 and 0.124 gallon in 1913-14. In the case of malt liquor, the consumption in 1915-16 was 39,638,877 gallons, or 4.95 gallons per head of beer, as against 47,963,225 gallons, or 6.071 gallons per head of beer in 1914-15. At the same time the excise revenue from spirits and malt has been maintained at or near the former levels as a consequence of the increased taxes imposed upon the outbreak of the war. In 1916 special provincial temperance legislation took effect in Ontario and in other provinces, the influence of which should become more apparent in the near future. Of tobacco, the quantity consumed in 1915-16 was 23,937,785 lb., as compared with 24,444,380 lb. in 1914-15. The number of cigars consumed was 207,647,808 in 1915-16, as against 236,866,542 in 1914-15. The consumption per head of tobacco, including cigars, was 3.329 lb. in 1915-16, as against 3.427 lb. in 1914-15, 3.711 lb. in 1913-14 and 3.818 lb. in 1912-13, in which year the highest point was reached.

**Electric Light and Power.**—Electric light and power companies are subject to registration and inspection under the Electricity Inspection Act, 1907 (6-7 Edw. VII, c. 14), and the production of electrical energy

## INLAND REVENUE.

for export is regulated by the Electricity and Fluid Exportation Act, 1907 (6-7 Edw. VII, c. 16). Both Acts are administered by the Department of Inland Revenue, and the statistics published in connection therewith are given in Tables 21 and 22.

## 16.—Excise and other Revenues for the Fiscal Years 1911-1916.

Sources of Revenue.	1911.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$	\$
Acetic Acid....	10,242	11,300	10,526	11,412	7,255	8,250
Cigars.....	470,197	517,646	602,269	588,935	625,905	635,158
Electric Light..	59,583	66,000	74,833	80,476	82,565	70,562
Malt.....	1,529,472	1,716,547	1,864,525	2,012,301	2,616,288	2,689,300
Malt liquor....	52,893	86,756	149,437	161,416	142,903	97,779
Manufactures in bond.....	77,840	84,720	91,460	92,160	94,904	105,812
Methylated spirits.....	90,999	93,083	118,077	116,208	96,747	111,846
Ferry Licenses.	474	1,024	529	964	989	989
Seizures.....	5,605	2,319	2,062	1,434	4,141	10,349
Spirits.....	7,913,376	8,667,666	9,474,142	9,038,028	8,706,481	8,701,075
Tobacco.....	6,784,140	8,130,776	9,192,181	9,489,426	9,352,881	10,222,784
War tax, revenue stamps, etc.	—	—	—	—	98,057	1,550,488
Weights and measures, gas and law stamps.....	151,229	163,958	171,509	185,854	172,740	169,454
Other revenues.	96,626	96,328	109,825	99,276	83,075	78,389
<b>Totals.....</b>	<b>17,242,676</b>	<b>19,638,183</b>	<b>21,861,375</b>	<b>21,877,891</b>	<b>22,084,931</b>	<b>24,452,235</b>

## 17.—Statistics of Distillation for the Fiscal Years 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916.
Licenses issued..... NO.	15	14	14	14	16
License fees..... \$	3,750	3,500	3,500	3,500	3,750
Grain, etc., for distillation—					
Malt..... lb.	5,676,504	6,637,629	7,434,935	6,761,342	4,863,855
Indian Corn..... "	52,403,560	63,048,555	72,170,255	60,905,148	33,006,001
Rye..... "	9,474,631	11,696,490	15,362,100	13,859,435	6,932,883
Oats..... "	501,435	640,594	712,642	582,074	169,130
Wheat..... "	2,851,840	3,026,065	2,466,162	1,180,970	—
Total grain for distillation..... "	70,907,970	85,049,333	98,146,094	83,288,969	44,971,959
Molasses..... "	8,682,660	26,885,496	19,690,720	20,587,603	14,884,460
Proof spirits manufactured..... gal.	4,784,396	6,458,452	6,972,583	6,116,580	3,450,012
Duty collected ex-manufactory on deficiencies and assessments—					
Gallons.....	9,317	2,508	2,001	6,407	4,066
Amount..... \$	17,703	4,765	3,803	12,174	9,759
Total duty collected plus license fees..... \$	21,453	8,265	7,303	15,674	13,509
Vinegar..... gal.	2,006,159	2,392,508	2,203,822	2,199,421	2,324,408
Acetic Acid..... "	278,749	261,890	283,440	178,887	203,753



## FINANCE.

## 18.—Quantities of Spirits, Malt Liquor, Malt and Tobacco, taken out of Bond for Consumption, 1868-1916.

Fiscal Year.	Spirits.	Malt Liquor.	Malt.	Tobacco, snuff and Cigarettes made from—			Cigars.
				Foreign Leaf	Canadian Leaf.	Combination Leaf.	
	Gal.	Gal.	Lb.	l b.	Lb.	Lb.	No.
1868..	3,772,719	7,685,309	17,181,500	—	—	—	—
1869..	2,809,501	7,609,148	23,731,351	—	—	—	—
1870..	3,810,930	7,290,540	22,636,249	6,896,624	—	—	128,096
1871..	4,219,245	8,457,096	27,671,496	6,623,978	46,791	—	125,842
1872..	3,808,291	9,557,328	29,981,647	7,952,735	31,900	—	191,564
1873..	3,730,337	11,060,521	33,955,694	6,364,876	16,558	—	188,354
1874..	4,566,508	10,771,519	33,369,016	8,516,633	129,842	—	334,925
1875..	3,303,298	11,584,226	33,016,082	6,489,192	67,473	—	329,148
1876..	3,441,125	9,319,190	30,693,447	8,171,552	17,682	—	312,470
1877..	2,942,337	9,115,258	28,878,551	7,481,024	17,390	—	334,925
1878..	3,007,870	8,578,075	26,534,587	7,150,410	8,244	—	318,051
1879..	3,646,255	8,848,208	27,795,037	7,100,696	7,416	—	362,674
1880..	2,290,367	9,201,213	28,902,354	7,352,487	50,865	—	395,183
1881..	3,214,543	9,931,176	30,798,078	7,717,970	383,301	—	410,932
1882..	3,552,818	12,036,979	37,910,046	7,909,674	471,298	—	524,612
1883..	3,818,787	12,757,444	39,587,385	8,569,784	395,214	—	736,614
1884..	3,608,021	13,098,700	40,533,102	9,745,705	326,975	—	931,062
1885..	4,274,722	12,071,752	47,005,917	10,562,381	499,132	—	86,062,990
1886..	2,412,818	13,282,261	37,604,708	7,563,602	346,471	—	78,869,878
1887..	2,864,935	14,786,285	42,630,440	8,248,239	598,335	—	92,046,289
1888..	2,326,327	15,944,002	48,640,467	8,539,160	716,873	—	85,974,823
1889..	2,950,447	16,363,349	51,111,429	8,962,667	788,456	—	90,783,558
1890..	3,521,194	17,196,115	45,974,013	9,257,799	632,035	—	92,599,820
1891..	2,687,664	18,069,183	57,909,201	9,354,340	442,403	—	98,976,117
1892..	2,545,935	16,946,245	46,425,882	9,523,203	468,962	—	101,142,481
1893..	2,731,896	17,175,356	50,082,751	9,612,857	515,012	—	104,528,791
1894..	2,739,109	18,299,636	51,311,206	9,611,393	390,946	—	114,668,809
1895..	2,509,019	17,628,815	50,659,627	9,229,857	538,353	—	115,440,480
1896..	2,332,859	18,014,714	51,690,278	9,118,029	515,557	—	106,131,294
1897..	2,779,946	17,888,239	68,443,353	9,419,019	804,452	—	108,290,260
1898..	1,874,479	19,871,738	38,954,715	7,109,507	1,946,027	—	113,276,105
1899..	2,404,509	21,101,873	56,212,822	7,626,264	2,271,719	352,205	113,132,223
1900..	2,523,576	23,309,172	60,284,064	7,514,663	2,523,936	1,126,439	128,919,098
1901..	2,707,949	25,108,254	64,723,616	7,325,431	3,165,084	1,203,982	138,041,707
1902..	2,933,183	27,623,767	71,440,519	7,679,334	3,007,254	1,285,752	141,096,889
1903..	2,979,268	25,755,154	67,608,157	8,030,485	3,204,980	1,771,784	151,780,516
1904..	3,481,287	27,335,985	75,430,347	8,615,760	3,041,622	1,550,325	168,290,422
1905..	3,112,843	30,330,370	75,517,352	9,151,709	3,140,694	1,903,791	180,485,202
1906..	3,545,735	33,250,637	85,699,102	10,190,515	3,208,806	1,926,595	186,110,777
1907 <sup>2</sup> ..	3,033,439	26,505,831	69,176,871	8,340,652	2,277,436	1,499,582	193,827,342
1908..	3,918,657	38,800,380	98,579,733	11,810,268	3,110,228	2,205,542	154,253,260
1909..	3,627,266	37,317,964	92,631,306		18,268,135		200,133,255
1910..	3,777,153	38,558,210	95,166,134		19,293,891		192,105,371
1911..	4,146,452	41,752,448	101,525,430		20,641,947		205,820,851
1912..	4,534,785	47,518,647	114,029,523		23,749,939		227,585,692
1913..	4,999,937	52,314,400	123,920,607		25,237,332		252,718,242
1914..	4,762,618	56,060,846	133,794,639		25,735,773		294,772,933
1915..	4,021,090	47,963,225	111,037,743		24,444,380		288,219,892
1916..	3,629,324	39,638,877	89,476,590		23,937,785		236,866,542
							207,647,808

<sup>1</sup> Total quantity manufactured.<sup>2</sup> Nine months.<sup>3</sup> Pounds.

## INLAND REVENUE.

19.—Consumption per head of Spirits, Wine, Beer and Tobacco and amount of Excise and Customs Duties per head, 1869-1916.

Fiscal Year.	Consumption of				Duty paid on			
	Spirits.	Wine.	Beer.	To-bacco.	Spirits.	Wine.	Beer.	To-bacco.
	Gal.	Gal.	Gal.	lb.	\$	\$	\$	\$
1869.....	1.124	0.115	2.290	1.755	0.761	0.037	0.092	0.193
1870.....	1.434	0.195	2.163	2.190	0.962	0.049	0.085	0.259
1871.....	1.578	0.259	2.490	2.052	1.059	0.056	0.095	0.336
1872.....	1.723	0.257	2.774	2.481	1.160	0.070	0.108	0.422
1873.....	1.682	0.238	3.188	1.999	1.335	0.066	0.120	0.350
1874.....	1.994	0.288	3.012	2.566	1.363	0.086	0.119	0.442
1875.....	1.394	0.149	3.091	1.995	1.127	0.069	0.114	0.428
1876.....	1.204	0.177	2.454	2.316	1.182	0.075	0.098	0.513
1877.....	0.975	0.096	2.322	2.051	0.949	0.057	0.109	0.446
1878.....	0.960	0.096	2.169	1.976	0.927	0.052	0.147	0.439
1879.....	1.131	0.104	2.209	1.954	1.005	0.057	0.125	0.449
1880.....	0.715	0.077	2.248	1.936	0.772	0.055	0.081	0.428
1881.....	0.922	0.099	2.293	2.035	0.990	0.073	0.081	0.443
1882.....	1.009	0.120	2.747	2.150	1.084	0.092	0.098	0.485
1883.....	1.090	0.135	2.882	2.280	1.186	0.097	0.103	0.473
1884.....	0.998	0.117	2.924	2.476	1.074	0.082	0.104	0.365
1885.....	1.126	0.109	2.639	2.623	1.198	0.074	0.111	0.393
1886.....	0.711	0.110	2.839	2.052	1.007	0.074	0.091	0.502
1887.....	0.746	0.095	3.084	2.062	1.045	0.066	0.100	0.514
1888.....	0.645	0.094	3.247	2.093	0.944	0.066	0.110	0.509
1889.....	0.776	0.097	3.263	1.953	1.107	0.068	0.114	0.529
1890.....	0.883	0.104	3.360	2.043	1.257	0.072	0.121	0.539
1891.....	0.745	0.111	3.790	2.292	1.094	0.080	0.137	0.590
1892.....	0.701	0.101	3.516	2.291	1.156	0.075	0.211	0.680
1893.....	0.740	0.094	3.485	2.314	1.235	0.070	0.218	0.691
1894.....	0.742	0.089	3.722	2.264	1.235	0.060	0.205	0.683
1895.....	0.666	0.090	3.471	2.163	1.124	0.056	0.161	0.645
1896.....	0.623	0.070	3.528	2.120	1.159	0.047	0.164	0.639
1897.....	0.723	0.084	3.469	2.243	1.341	0.041	0.213	0.671
1898.....	0.536	0.082	3.808	2.358	1.306	0.041	0.126	0.615
1899.....	0.661	0.086	3.995	2.174	1.367	0.045	0.174	0.841
1900.....	0.701	0.085	4.364	2.300	1.455	0.044	0.185	0.853
1901.....	0.757	0.099	4.680	2.375	1.574	0.047	0.195	0.864
1902.....	0.786	0.090	5.635	2.371	1.631	0.048	0.211	0.902
1903.....	0.848	0.094	4.592	2.483	1.766	0.049	0.200	0.967
1904.....	0.917	0.092	4.739	2.664	1.913	0.049	0.217	1.005
1905.....	0.895	0.093	5.123	2.768	1.898	0.049	0.214	1.036
1906.....	0.898	0.095	5.484	2.898	1.879	0.052	0.238	1.100
1907 <sup>1</sup> .....	0.977	0.095	5.765	3.048	2.035	0.054	0.257	1.317
1908.....	0.939	0.102	6.146	3.066	1.965	0.057	0.268	1.194
1909.....	0.860	0.091	5.708	3.105	1.794	0.050	0.241	1.101
1910.....	0.883	0.105	5.713	3.183	1.843	0.057	0.242	1.059
1911.....	0.948	0.114	5.999	3.323	1.988	0.059	0.257	1.157
1912.....	1.030	0.114	6.598	3.679	2.170	0.063	0.288	1.236
1913.....	1.112	0.131	7.005	3.818	2.340	0.076	0.320	1.462
1914.....	1.061	0.124	7.200	3.711	2.249	0.069	0.328	1.438
1915.....	0.872	0.095	6.071	3.427	2.086	0.051	0.379	1.361
1916.....	0.745	0.062	4.950	3.329	1.951	0.033	0.362	1.454

<sup>1</sup>Nine months—Calculation on basis of 12 months.

## FINANCE.

20.—Number of Excise Licenses issued during the Fiscal Years 1909-1916.

Description.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Distillers.....	14	14	15	15	14	14	14	13
Maltsters.....	48	48	48	42	40	37	36	19
Brewers.....	134	131	121	114	117	119	118	106
Tobacco Manufacturers....	78	62	66	64	72	82	89	84
do Can. Twist.....	36	35	41	40	31	24	25	19
Cigar Manufacturers.....	224	231	225	235	253	255	262	221
Petroleum Refineries.....	3	4	4	4	5	5	6	9
Manufacturers in Bond—								
Vinegar.....	19	19	19	19	19	20	20	18
Perfumes, Pharmaceutical								
Preparations, etc.....	27	26	29	29	29	37	47	54
Fulminate of Mercury....	2	2	2	1	1	2	2	2
Cereal Foods.....	—	—	1	1	1	1	1	3
Chemical Stills.....	34	43	43	48	70	70	69	119
Wood Alcohol Manu-								
facturers.....	—	—	11	16	11	11	11	12
Malt Vinegar Brewers....	1	1	1	2	2	2	1	2
Compounders.....	2	3	3	4	6	6	5	2
Still Manufacturers.....	2	2	2	2	2	2	3	3
Acetic Acid Manufacturers	2	2	2	2	1	1	2	2
Bonded Warehouses.....	258	266	252	253	262	252	265	230

21.—Number of Electric Light and Power Companies registered under the Electricity Inspection Act in the Fiscal Years 1910-16.

Provinces.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward							
Island.....	2	3	4	5	5	6	6
Nova Scotia.....	31	32	33	36	37	35	35
New Brunswick....	17	18	22	25	24	24	24
Quebec.....	63	63	60	65	70	53	61
Ontario.....	217	228	219	230	262	282	287
Manitoba.....	17	17	14	18	16	16	16
Saskatchewan....	10	12	9	15	52	54	54
Alberta.....	10	10	21	28	39	36	36
British Columbia..	29	33	35	36	57	55	55
Yukon.....	2	2	2	2	2	—	—
Totals.....	398	418	419	460	564	561	574

## INLAND REVENUE.

22.—Electrical Energy generated or produced for Export and for Consumption in Canada under authority of the Electricity and Fluid Exportation Act during the Fiscal Years 1913, 1914, 1915 and 1916.

Companies.	Generated or produced for export.	Generated or produced for consumption in Canada.	Total output of generating station or other source.
	Units.	Units.	Units.
Ontario Power Company of Niagara Falls Niagara Falls, Ontario.....	1913 254,286,580	284,950,978	539,237,558
	1914 282,123,004	412,597,896	694,720,900
	1915 203,633,936	579,915,364	783,549,300
	1916 199,135,160	616,834,440	815,969,600
Canadian Niagara Power Company, Niagara Falls, Ontario.....	1913 325,775,842	10,986,988	336,762,830
	1914 400,214,980	11,420,020	411,635,000
	1915 382,672,196	9,755,804	392,428,000
	1916 400,521,090	11,178,910	411,700,000
Electrical Development Company of Ontario Ltd., Niagara Falls, Ontario.	1913 55,034,000	155,773,208	210,807,408
	1914 42,154,000	191,885,670	234,039,670
	1915 -	262,407,443	262,407,443
	1916 34,652,000	395,346,500	429,998,500
Ontario and Minnesota Power Company, Fort Frances, Ontario.....	1913 21,233,520	1,094,513	22,328,033
	1914 21,649,327	868,856	22,518,183
	1915 19,190,360	8,069,997	27,260,357
	1916 13,144,070	11,789,534	24,933,604
Maine and New Brunswick Electrical Power Company, Ltd., Aroostook Falls, N.B.....	1913 2,371,446	63,070	2,434,516
	1914 2,846,016	57,967	2,903,983
	1915 3,054,393	172,849	3,227,242
	1916 3,075,893	242,437	3,318,330
British Columbia Electric Ry. Co., Vancouver, B.C.....	1913 282,383	120,789,188	121,071,571
	1914 395,831	114,697,400	115,093,231
	1915 397,709	81,629,981	82,027,690
	1916 330,626	68,470,689	68,801,315
Western Canada Power Co., Vancouver, B.C.....	1913 3,259,693	18,191,562	21,451,255
	1914 23,213,891	39,339,239	62,553,130
	1915 18,219,238	52,334,262	70,553,500
	1916 11,937,700	60,468,020	72,405,720
Sherbrooke Railway and Power Co., Sherbrooke, Que.....	1916 230,820	8,605,200	8,836,020
Cedars Rapids Mfg. and Power Co., Cedars Rapids, Que.....	1915 28,913,000 <sup>1</sup>	7,599,800 <sup>1</sup>	36,512,800 <sup>1</sup>
	1916 358,753,000	56,031,000	414,784,000
<b>Totals.....</b>	<b>1913 662,243,664</b>	<b>591,849,507</b>	<b>1,254,093,171</b>
	<b>1914 772,597,049</b>	<b>770,867,048</b>	<b>1,543,464,097</b>
	<b>1915 656,080,832</b>	<b>1,001,885,500</b>	<b>1,657,966,332</b>
	<b>1916 1,021,780,359</b>	<b>1,228,966,730</b>	<b>2,250,747,089</b>

<sup>1</sup>For first three months of fiscal year.



## FINANCE.

## PROVINCIAL PUBLIC ACCOUNTS.

Tables 23-25 show for the latest financial year for which reports have been published the receipts and expenditure of each of the nine Provincial Governments of Canada. Table 23 giving totals and per capita figures for each of the five years ended 1915-16, Table 24 similar figures for the year 1915-16 and Table 25 shows the detailed items for the latest year available. In Tables 23 and 24 the figures for Alberta are for the year ended December 31, 1916, but in Table 25 the Alberta detailed figures are for the year ended December 31, 1915. The total revenue of the nine provinces for the period covered by Table 24 amounts to \$49,644,541, and the total expenditure to \$53,241,866. The largest revenue is that of Ontario, \$13,841,340, Quebec being next with \$9,647,983 and British Columbia third with \$6,291,694. In the total expenditure for the year that of Ontario was highest, \$12,706,333, British Columbia second with \$9,880,662, and Quebec third with \$9,436,688. Per capita the largest revenues are in British Columbia \$11.04, and Manitoba \$10.72, the same provinces having also the greatest expenditures per capita, viz., British Columbia \$17.34 and Manitoba \$11.17.

23.—Annual Revenue and Expenditure of the Provincial Governments, 1911-12 to 1915-16.

Province.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.
Prince Edward Island—	\$	\$	\$	\$	\$
Total Revenue.....	485,565 <sup>1</sup>	506,553	525,555	470,730	482,535
Total Expenditure.....	527,220 <sup>1</sup>	450,112	445,396	510,169	463,217
Revenue per head.....	5.18	5.40	5.61	5.02	5.15
Expenditure per head....	5.62	4.80	4.75	5.44	4.94
Nova Scotia—					
Total Revenue.....	1,870,056	1,920,565	1,885,458	1,953,302	2,165,338
Total Expenditure.....	1,832,075	1,940,784	2,098,307	2,073,673	2,132,135
Revenue per head.....	3.80	3.85	3.75	3.89	4.26
Expenditure per head....	3.72	3.91	4.18	4.13	4.19
New Brunswick—					
Total Revenue.....	1,417,722	1,459,000	1,505,229	1,634,079	1,580,419
Total Expenditure.....	1,459,049	1,446,963	1,493,774	1,626,634	1,568,342
Revenue per head.....	4.01	4.12	4.25	4.62	4.36
Expenditure per head....	3.98	4.08	4.22	4.59	4.33
Quebec—					
Total Revenue.....	8,070,109	8,382,737	9,000,377	9,597,926	9,647,983
Total Expenditure.....	8,310,123	8,557,712	8,743,308	9,959,171	9,436,688
Revenue per head.....	4.03	4.04	4.25	4.54	4.39
Expenditure per head....	4.15	4.11	4.07	4.71	4.29
Ontario—					
Total Revenue.....	10,042,001	11,188,302	11,121,382	12,975,732	13,841,340
Total Expenditure.....	10,287,992	10,868,026	11,819,311	12,704,362	12,706,333
Revenue per head.....	3.93	4.32	4.23	4.94	5.12
Expenditure per head....	4.03	4.19	4.49	4.84	4.70
Manitoba—					
Total Revenue.....	7,046,675	5,788,070	5,512,163	5,472,955	5,897,807
Total Expenditure.....	4,339,540	5,314,849	5,638,658	6,026,596	6,147,780
Revenue per head.....	14.98	11.83	10.84	10.35	10.72
Expenditure per head....	9.23	10.87	11.08	11.39	11.17
Saskatchewan—					
Total Revenue.....	3,359,866	4,427,047	5,866,220	4,687,933	4,455,730
Total Expenditure.....	3,294,337	4,511,348	5,396,380	5,060,234	4,887,815
Revenue per head.....	6.60	8.23	10.30	7.78	6.99
Expenditure per head....	6.47	8.38	9.48	8.40	7.67

<sup>1</sup>Fifteen months.

## PROVINCIAL PUBLIC ACCOUNTS.

23.—Annual Revenue and Expenditure of the Provincial Governments,  
1911-12 to 1915-16,—concluded.

Province.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.
Alberta—	\$	\$	\$	\$	\$
Total Revenue.....	4,040,351	5,399,905	5,255,276	5,143,590	5,281,695
Total Expenditure.....	3,896,800	5,225,584	5,401,595	5,714,032	6,018,894
Revenue per head.....	10.42	13.12	12.04	11.10	10.74
Expenditure per head....	10.05	12.70	12.37	12.32	12.24
British Columbia—					
Total Revenue.....	10,745,709	12,510,215	10,479,259	7,974,496	6,291,694
Total Expenditure.....	11,183,024	15,444,822	15,765,912	11,942,637	9,889,662
Revenue per head.....	25.69	27.62	21.46	16.33	11.04
Expenditure per head....	26.75	34.18	32.30	24.46	17.34
SUMMARY—					
Total Revenue.....	47,178,054	51,582,394	51,150,919	49,910,743	49,644,541
Total Expenditure.....	45,086,100	53,741,608	55,415,287	55,617,537	53,241,866
Revenue per head.....	6.45	6.87	6.64	6.32	6.12
Expenditure per head....	6.16	7.16	7.33	7.04	6.56

## 24.—Revenue and Expenditure of the Provincial Governments, 1915-1916.

Provinces.	Year Ended.	Total Revenue.	Revenue per head	Total Expenditure.	Expenditure per head
		\$	\$ cts.	\$	\$ cts.
Prince Edward Island	December 31, 1916...	42,535	5.15	463,217	4.94
Nova Scotia.....	September 30, 1916...	2,165,338	4.26	2,132,135	4.19
New Brunswick.....	October 31, 1916.....	1,580,419	4.36	1,568,342	4.33
Quebec.....	June 30, 1916.....	9,647,983	4.39	9,436,688	4.29
Ontario.....	October 31, 1916.....	13,841,340	5.12	12,706,333	4.70
Manitoba.....	November 30, 1916...	5,897,807	10.72	6,147,780	11.17
Saskatchewan.....	February 28, 1916...	4,455,730	6.99	4,887,815	7.67
Alberta.....	December 31, 1916...	5,281,695	10.74	6,018,894	12.24
British Columbia....	March 31, 1916.....	6,291,694	11.04	9,889,662	17.34
Total.....		49,644,541	6.12	53,241,866	6.56

## 25.—Receipts and Expenditure of the Provincial Governments, 1915-1916.

## PRINCE EDWARD ISLAND (Year ended December 31, 1916).

Receipts from	Amount.	Expenditure for	Amount.
Dominion subsidy.....	\$ 372,182	Administration of justice....	\$ 27,947
Fees, Provincial Secretary...	1,785	Education.....	173,963
Prothonotary's fees.....	1,815	Hospital and infirmary.....	59,252
Fire Insurance Cos.....	5,400	Interest.....	45,899
Life Insurance Cos.....	1,612	Legislation.....	10,027
Registrar of deeds.....	5,590	Paupers.....	3,845
Banks.....	5,754	Agriculture, Dept. of.....	19,314
Hospital fees.....	6,303	Provincial Sec'y Treasurer...	7,607
Succession duties.....	10,213	Registry offices.....	5,330
Land tax.....	38,040	Public Works Dept., salaries	
Income tax.....	14,414	roads, bridges, etc.....	68,522
Fines and penalties.....	1,787	Sinking fund.....	11,745
Fox tax.....	9,744	Executive Council.....	2,873
Miscellaneous.....	7,896	Provincial Buildings.....	3,725
		Library.....	1,224
		Telephone Extension.....	1,151
		Miscellaneous.....	20,623
Total receipts.....	482,535	Total expenditure.....	463,217

## FINANCE.

## 25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.

NOVA SCOTIA (Year ended September 30, 1916).

Receipts from	Amount.	Expenditure for	Amount.
	\$		\$
Subsidy, Dominion of Canada	636,667	Interest.....	54,868
Mines.....	814,258	Debenture interest.....	450,774
Interest mortgage H. & S.W.		Sinking funds.....	40,669
Ry.....	155,645	Legislative expenses.....	68,177
Succession duties.....	161,450	Salaries.....	17,250
Nova Scotia Hospital.....	112,768	Education.....	370,146
Victoria General Hospital.....	20,561	Technical education.....	55,440
Provincial Sanatorium.....	12,183	School Book Bureau.....	34,949
Joint stock companies.....	19,127	Agriculture.....	84,553
Fees, and game licenses.....	5,528	Mines and Crown Lands.....	36,528
Marriage licenses.....	11,442	Miners' relief societies.....	24,387
Crown Lands.....	20,624	Public Charities Dept.:—	
Agriculture.....	9,540	Nova Scotia Hospital.....	150,753
Education.....	1,763	Victoria General Hospital.....	109,869
Technical education.....	10,848	County Hospitals.....	26,662
School Book Bureau.....	28,916	Provincial Sanatorium.....	26,998
Private bills.....	1,640	Transient poor.....	10,847
Royal Gazette.....	2,281	Public Works.....	28,088
Supplementary revenue.....	68,292	Public printing.....	21,427
Motor Vehicles.....	41,956	Highways.....	216,723
Interest.....	7,211	Road Commissioners' office..	17,018
Theatres and Cinematographs.....	12,343	Steamboats, packets and ferries.....	73,404
Temporary Tax.....	7,334	Industries and immigration..	15,465
Miscellaneous.....	2,961	Succession duties.....	1,208
		Roads, Motor Vehicle Act...	17,769
		Criminal Prosecutions.....	13,579
		Miscellaneous.....	164,584
<b>Total receipts.....</b>	<b>2,165,338</b>	<b>Total expenditure.....</b>	<b>2,132,135</b>

NEW BRUNSWICK (Year ended October 31, 1916).

Dominion subsidies.....	637,976	Administration of justice....	23,513
Territorial revenue:—		Agriculture.....	46,617
Stumpage.....	354,043	Contingencies.....	20,935
Mileage Timber licenses.	83,892	Education.....	290,941
Royalties.....	17,890	Executive government.....	45,853
Fishing leases.....	20,309	Fish, forest and game.....	33,800
Game licenses, etc.....	46,928	Immigration.....	10,000
Probate fee fund.....	16,738	Interest.....	351,005
Provincial hospital.....	42,972	Legislative Assembly.....	27,803
Jordan Memorial Sanatorium	8,999	Public Hospital.....	10,000
Motor vehicles.....	38,482	Provincial Hospital.....	94,386
School books.....	18,222	Liquor licenses.....	26,244
Fees, Provincial Secretary's office.....	30,109	School books.....	21,050
Taxes, incorporated companies.....	55,052	Sinking funds.....	31,406
Railway taxes.....	53,690	Public works.....	346,458
Succession duties.....	77,952	Stumpage collection.....	29,398
Liquor licenses.....	43,273	Printing.....	16,913
Miscellaneous items.....	33,892	Probate fee fund.....	13,518
		Jordan Memorial Sanatorium	37,839
		Canadian Patriotic Fund,	
		Contribution.....	12,500
		Miscellaneous.....	78,163
<b>Total receipts.....</b>	<b>1,580,419</b>	<b>Total expenditure.....</b>	<b>1,568,342</b>

## PROVINCIAL PUBLIC ACCOUNTS.

## 25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.

QUEBEC (Year ended June 30, 1916).

Receipts from	Amount.	Expenditure for	Amount.
	\$		\$
Dominion subsidies.....	1,842,170	Interest on debt.....	1,435,812
Special subsidy.....	127,461	Redemption of debt.....	142,788
Interest on trust fund.....	58,274	Premium, disc't,exch'ge, etc.	8,067
Lands and Forests—		Sinking fund.....	121,712
General receipts.....	83,597	Legislation—	
Woods and forests.....	1,683,682	Legislative Council.....	58,531
Crown domain.....	28,354	Legislative Assembly.....	227,043
Fisheries and game.....	138,489	Printing and binding.....	116,632
Mines.....	22,369	Library.....	11,950
Law stamps.....	456,600	Civil government, salaries,	
Law fees, exclusive of stamps.	60,843	etc.....	649,156
Building and jury fund.....	79,632	Administration of justice....	1,157,907
Registration stamps.....	190,507	Reformatory and industrial	
Licenses—hotel, shop, etc....	1,047,768	schools.....	145,000
Taxes on commercial cor-		Public instruction.....	1,545,079
porations.....	1,034,564	Agriculture.....	470,862
Succession duties.....	1,375,804	Improvement of rural roads..	349,000
Lunatic Asylums—Municipal		Colonization roads, etc.....	209,000
contributions and paying		Public works and buildings..	935,851
patients.....	229,946	Charities—Lunatic asylums,	
Reformatory and industrial		etc.....	633,625
schools.....	60,990	Grants to various charitable	
Official Gazette.....	51,311	institutions.....	69,885
Interest on investments.....	107,844	Lands and forests.....	370,500
Interest on sinking fund....	28,015	Mines and fisheries.....	99,033
Interest from Municipalities		Pensions—Civil Service.....	71,472
under the Good Roads Act..	137,402	Collection of revenue, for	
Premium, discount and ex-		licenses, etc.....	156,000
change.....	40,594	Registrars' salaries and con-	
Tax under 3 Geo. V., Cap. 38.	53,341	tingencies.....	84,819
Tax on transfer of shares,		Expenses of Elections.....	64,530
bonds, etc.....	75,185	Motor Vehicle Law.....	28,829
Motor vehicle law.....	247,082	Official Gazette.....	30,000
Casual revenue.....	103,607	Streams Commission.....	42,565
Reimbursement Railway sub-		Miscellaneous.....	201,040
sidy tax.....	40,321		
Municipalities, for main-			
tenance of prisoners.....	19,867		
Civil service, contributions			
for pensions.....	23,861		
Insurance Act Revenue.....	23,847		
Miscellaneous items.....	174,656		
<b>Total receipts.....</b>	<b>9,647,983</b>	<b>Total expenditure.....</b>	<b>9,436,688</b>



## FINANCE.

## 25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.

ONTARIO (Year ended October 31, 1916).

Receipts from	Amount.	Expenditure for	Amount.
	\$		\$
Dominion of Canada—			
Subsidy on population and special grant.....	2,253,964	Civil Government.....	826,653
Subsidy, 47 Vic., c. 4.....	142,415	Legislation.....	292,158
Interest paid by the Dominion (common sch. fund).....	73,506	Administration of justice....	644,219
Interest on investments....	178,577	Education.....	2,262,801
Lands, Forests and Mines..	1,860,557	Public institutions, maintenance.....	1,464,504
Timiskaming and N.O. Ry.	1,000,000	Colonization and immigration.....	43,671
Agriculture.....	143,806	Agriculture.....	746,627
Law stamps.....	123,630	Hospitals and charities.....	522,452
Education Department....	70,279	Repairs and maintenance....	241,579
Fisheries and game.....	174,602	Colonization roads.....	253,539
Provincial Secy's Dept.—		Charges, Crown lands.....	616,279
Charitable Institutions....	277,043	Refunds.....	90,932
Licenses.....	346,169	Hydro-Electric Power Commission.....	127,044
Registrar General's Branch	44,583	Game and fisheries.....	130,952
Letters Patent, Licenses, etc.....	109,276	Public Buildings, etc.—	
Other Items.....	34,703	For Parliament Buildings..	21,569
Department of Public Highways—		“ Public Institutions....	137,254
Motor Vehicles Branch....	639,987	“ Educational Buildings..	23,667
Fire Marshal's Tax.....	74,148	“ Osgoode Hall.....	20,383
Corporation Tax Act, 4 Geo. V., c. 11.....	1,831,391	“ Public works.....	179,373
Succession duties.....	2,333,700	“ Under Special Warrants..	217,156
Deposits in lieu of bond of payment of succession duty.....	118,094	“ Statutory expenditure..	2,710,834
Casual revenue.....	671,124	“ Other Public Buildings..	33,803
Insurance Department.....	71,341	War expenditure—	
Hydro-Electric Commission,		Ontario Military Hospital in England—	
Interest paid by municipalities under R. S. O., 1914.....	515,083	Construction.....	225,000
War Tax Act, 5 Geo. V., c. 3, proceeds of sale of Treasury Bills.....	749,218	Equipment.....	77,099
Other items.....	4,141	Maintenance.....	71,636
		Gifts to British Navy, etc..	86,336
		Grants in Aid of Recruiting.	74,400
		Salaries of civil servants with C. E. Force.....	94,625
		Other War Expenditure....	120,122
		Miscellaneous items.....	349,666
Total receipts.....	13,841,340	Total expenditure.....	12,706,333

## PROVINCIAL PUBLIC ACCOUNTS.

25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.  
MANITOBA (Year ended November 30, 1916).

Receipts from	Amount.	Expenditure for	Amount.
Dominion of Canada—	\$	Legislation—	\$
Subsidy.....	1,406,204	Members.....	71,493
School land fund.....	176,005	Salaries.....	13,349
Total.....	1,582,209	Printing and binding contracts.....	34,166
		Comptroller-General's Office.....	36,333
Dept. of Attorney-General—		Other items.....	22,753
Fines.....	50,711	Total.....	178,094
County Court fees.....	18,705	Executive Council.....	39,883
Law fees.....	40,025	Treasury Department—	
Land titles—general fees....	239,974	Provincial debentures—	
Liquor licenses.....	864	Interest.....	1,255,707
		Wolf bounties.....	22,238
Department of Agriculture and Immigration—		Retiring allowances and annuities.....	18,967
Fees.....	45,087	Employees on Active Service.....	35,712
Marriage licenses.....	6,501	Other items.....	134,404
Agricultural College.....	63,146	Total.....	1,467,028
Dept. of Education—		Provincial Secretary's Dept.....	28,720
Fees.....	47,593	Dept. of Education—	
Legislation.....	2,645	Grants.....	665,890
Dept. of Provincial lands....	157,010	Training Schools.....	65,290
		Inspection of Schools.....	64,945
		Other items.....	114,380
Dept. of Public Works—		Total.....	910,505
Support of insane.....	90,136	Dept. of Agriculture and Immigration—	
“ deaf and dumb....	8,363	Agriculture and statistics..	82,113
“ incurables.....	28,741	Agricultural College.....	176,616
Industrial training school..	18,928	Grants, hospital and charity.....	153,957
Bureau of Labour.....	5,837	Immigration.....	37,799
Well Boring Machines receipts.....	10,718	Other items.....	37,768
Government grain elevators	59,158	Total.....	488,253
Dept. of Provincial Treasurer		Attorney-General's Dept—	
Interest.....	604,029	Land titles offices.....	134,537
Succession duties.....	304,496	Law Courts.....	53,920
Insurance Act fees.....	45,563	Police and Police Courts... ..	62,233
Fire prevention fees.....	8,257	Licenses.....	39,309
Corporation tax.....	220,729	Administration of justice... ..	189,827
Railway tax.....	200,222	Public Utilities Commission.....	22,529
Sundry revenue.....	25,018	Other items.....	41,125
Theatre and Automatic Vending Machine Tax....	18,865	Total.....	548,489
Automobile licenses.....	137,699	Telegraphs and telephones... ..	1,380,000
Telegraph and telephones....	1,820,190	Public Works Department—	
Dept. of Provincial Secretary fees, etc.....	39,289	Hospitals for insane.....	276,051
Miscellaneous.....	69	School for deaf and dumb....	42,070
		Home for incurables.....	75,736
		Industrial training school..	50,436
		Agricultural College.....	69,804
		Aid to municipalities and public works.....	171,153
		Other items.....	369,397
		Total.....	1,054,647
		Miscellaneous.....	57,170
Total receipts.....	5,897,807	Total expenditure.....	6,147,780

## FINANCE.

25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.  
SASKATCHEWAN (Year ended April 30, 1916).

Receipts from	Amount.	Expenditure for	Amount.
Dominion of Canada—	\$	Public Debt—	\$
Subsidy—		Interest.....	893,102
Government and legisla-		Sinking funds.....	75,499
tion.....	190,000	Charges on issue of securi-	
Population per capita....	552,800	ties and temporary loans.	119,449
Debt allowance.....	405,375	Premium, discount and ex-	
In lieu of lands.....	562,500	change, etc.....	5,657
School lands fund.....	239,985	Total.....	1,093,707
Total.....	1,950,660	Civil Government.....	343,719
Treasury Department.....	655,558	Legislation.....	211,604
Attorney-General's Dept.—		Administration of justice—	
Succession duties.....	44,380	Supreme, District and Sur-	
Land Titles Act—fees, etc.	398,973	rogate Courts.....	416,864
Liquor licenses, etc.....	13,209	Criminal investigations....	94,089
Fines and forfeitures.....	43,258	Police, prisoners and insane	78,604
Sale of law stamps.....	195,036	Registration of land titles..	237,225
Sheriffs' fees.....	239,026	Liquor License Act.....	15,810
Other items.....	13,272	Other items.....	16,811
Total.....	997,154	Total.....	859,403
Provincial Secretary's Dept.—		Public Works—	
Incorporation and Regis-		Public buildings.....	489,319
tration fees (Companies		Construction and mainten-	
Act).....	20,746	ance of small bridges....	87,974
Fees on annual returns		Roads and road improve-	
(Companies Act).....	32,700	ments.....	51,978
License fees—Motor vehicles	111,153	Ferry accommodation....	89,930
License fees—Moving pic-		Inspection of steam boilers	38,414
tures.....	12,454	Water supply.....	3,218
License fees—Auctioneers,		Surveys.....	50,272
pedlars and marriage....	20,227	Other items.....	17,779
Corporation Taxation Act..	167,205	Total.....	828,884
Railway Taxation Act.....	87,418	Education.....	987,795
Insurance companies fees..	39,703	Agriculture and Statistics—	
Other items.....	3,103	Assistance to agricultural	
Total.....	494,709	interests generally.....	68,549
Public Works Dept.—		Assistance to live stock in-	
Under Steam Boilers Act...	31,386	dustry.....	30,571
Revenue from jails.....	8,977	Assistance to dairy and	
Hospital for insane.....	16,948	poultry industries.....	87,986
Stock refunds.....	36,472	Publicity and statistical	
Other items.....	8,831	work.....	26,636
Total.....	103,614	Weed control and game	
Education.....	47,687	protection.....	18,273
Agricultural Department—		Bureau of Labour.....	7,595
Assessment on butter fat...	9,743	Destruction of wolves....	15,000
Brand fees.....	5,274	Other items.....	14,276
Game licenses.....	21,126	Total.....	268,886
Refund Creamery Loans...	60,000	Bureau of Public Health—	
Other items.....	8,146	Bureau of public health....	31,219
Total.....	104,283	Expenditure under the Hos-	
Municipal Dept.....	3,092	pitals Act.....	120,000
Clerk of the Legislative		Vital statistics.....	14,294
Assembly.....	40,128	Other items.....	14,934
Highways Department.....	51,900	Total.....	180,447
Miscellaneous items.....	6,945	Neglected children.....	30,619
		Miscellaneous items.....	82,751
Total receipts.....	4,455,730	Total expenditure.....	4,887,815

## PROVINCIAL PUBLIC ACCOUNTS.

## 25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—con.

ALBERTA (Year ended December 31, 1915).

Receipts from	Amount.	Expenditure for	Amount.
Dominion of Canada—		Public debt.....	\$768,094
Annual subsidy.....	\$1,589,075	Civil government.....	485,528
Public school lands.....	258,914	Legislation.....	119,484
Interest, General.....	33,365	Administration of justice....	733,650
Insurance Act fees.....	67,591	Public Works—	
Under Corporation Taxation		Maintenance and repairs....	251,084
Act—		Inspection of.....	5,504
Insurance companies.....	53,012	Inspection of coal mines....	28,655
Land companies.....	7,937	Inspection of steam boilers....	28,083
Loan & Trust companies....	18,640	Ferry service.....	47,314
Banks.....	47,450	Maintenance of bridges....	11,077
Miscellaneous companies....	6,810	Construction of roads.....	173,435
License fees—		Surveys.....	5,425
Marriage.....	8,260	Contingencies.....	3,386
Automobile.....	77,626	Total public works....	553,963
Under Theatres' Act.....	14,330	Education—	
Other.....	14,751	Grants paid under the	
Companies Ordinance—		School Grants Ordinance....	573,350
Incorporation fees, etc....	23,633	Normal schools and	
Foreign Companies Ordin-		teachers' institutes.....	44,283
ance—		Inspection of schools.....	39,161
License fees, etc.....	10,718	Examinations.....	27,050
Railway tax.....	74,166	School readers.....	22,660
Attorney General's Dept.—		Grants to University of	
Succession duties.....	107,881	Alberta.....	145,000
Land Titles Office, general		Other items.....	55,904
fees.....	260,804	Total education.....	907,408
Registrars' Assurance Fund	54,028	Agriculture—	
Court fees.....	153,592	Grants to agricultural	
Sheriffs' fees.....	66,149	societies.....	105,778
Gaols.....	12,837	Administration of Demon-	
Hospital for Insane.....	28,432	stration farms.....	14,510
Liquor License Ordinance—		Operation of Schools of	
Hotel licenses.....	149,963	Agriculture.....	20,000
Wholesale licenses.....	57,798	Promoting and encouraging	
Club licenses.....	10,317	Dairy Work.....	11,540
Brewers' and Distillers'		Poultry Industry.....	8,000
licenses.....	15,000	Vital Statistics.....	10,261
Other items.....	22,623	Live stock and agricultural	
Fines under Dominion and		institutes and associations	17,235
Provincial statutes.....	65,937	Destruction of noxious	
Department of Public Works.	62,331	weeds.....	24,274
Dept. of Municipal Affairs—		Protection of game.....	29,689
Educational Tax Trust Ac-		Expenses re Demonstra-	
count "D".....	129,604	tion farm.....	55,722
Wild Lands Tax.....	156,832	Advance payments—Cream-	
Timber Area Tax.....	18,415	eries.....	236,812
Other items.....	26,364	Immigration and coloniza-	
Agriculture Department....	236,172	tion.....	17,967
Education Department.....	15,960	Other items.....	62,136
Telephones.....	962,148	Total agriculture.....	613,924
Other items.....	224,125	Hospitals, charities and pub-	
		lic health.....	111,860
		Public Institutions.....	227,623
		Telephones.....	971,657
		Miscellaneous.....	220,841
Total receipts.....	5,143,590	Total expenditure.....	5,714,032



## FINANCE.

25.—Receipts and Expenditure of the Provincial Governments, 1915-1916—concluded.  
BRITISH COLUMBIA (Year ended March 31, 1916).

Received from	Amount.	Expenditure for	Amount.
Dominion of Canada—	\$		\$
Annual payment of interest	29,151	Interest on public debt.....	779,263
“ “ subsidy	180,000	Sinking funds, etc.....	262,842
“ grant per capita....	313,934	Premium, discount, exchange	
“ for lands conveyed..	100,000	and commission.....	438,960
“ payment spec'l gr'nt		Civil government (salaries)..	1,555,562
B.N.A. Act, 1907 .....	100,000	Administration of justice	
Land sales.....	119,772	(salaries).....	62,601
Land revenue.....	81,118	Legislation.....	96,875
Timber leases.....	126,479	Public Institutions—	
Timber royalty and licenses.	1,477,378	Printing office.....	51,351
Free Miners' Certificates....	47,921	Bureau of mines.....	4,950
Mining receipts, general.....	59,278	Hospital for insane.....	280,207
Licenses, Trade and Liquor..	75,925	Museum.....	3,937
“ Game.....	71,582	Provincial home.....	16,587
“ Motor.....	94,892	Fisheries (hatcheries and ad-	
“ etc., under Fire In-		ministration).....	23,726
surance Act.....	81,680	Agriculture.....	162,430
Fines and fees of court.....	20,117	Board of Health.....	31,793
Probate fees.....	64,505	Grant to University of B. C.	
Succession duties.....	139,907	(Conditional).....	175,000
Law stamps.....	81,178	Forest Protection Fund.....	115,270
Registration of companies....	37,950	Surveys.....	121,104
Registry fees.....	241,548	Songhees Indian Reserve Im-	
Real property tax.....	492,814	provement.....	79,310
Personal property tax.....	278,536	Kettle Valley Ry. (Under	
Wild land tax <sup>1</sup> .....	534,460	Cap. 35, 1912, and Cap. 64,	
Income tax.....	329,238	1911.).....	550,700
Interest.....	159,631	Hospitals and charities.....	355,441
Mineral tax.....	163,336	Administration of justice	
Printing office.....	25,091	(other than salaries).....	249,392
Log-scaling Fees.....	29,439	Education.....	1,325,308
Fees Under "Moving Picture		Transport.....	38,851
Act.....	17,715	Revenue services.....	18,555
Interest on investments of		Public Works,—	
sinking funds.....	98,133	Works and buildings.....	383,571
Royalty and tax on coal.....	173,262	Roads, streets, bridges and	
Tax on unworked Crown		wharves.....	2,063,235
granted Mineral Claims....	35,703	Subsidies to steamboats,	
Hospital for the insane.....	32,740	ferries and bridges.....	52,299
Water revenue.....	59,908	Miscellaneous, including	
Marriage licenses.....	16,070	surveys.....	814,324
Boiler inspection fees.....	24,327		10,083,504
Fishing cannery licenses.....	33,335	Less amount of sinking funds	
Timber sales.....	71,876	and redemption of debent-	
Traffic tolls.....	26,000	ures.....	202,842
Dykes Assessment Act.....	19,080		
Miscellaneous.....	126,535		
Net revenue.....	6,291,694	Net Expenditure.....	9,880,662

<sup>1</sup>Including Coal and Timber Lands.

## MUNICIPAL STATISTICS.

Tables 26-27 consist of municipal statistics, collected by means of a schedule addressed to the clerks of cities and towns throughout Canada having a population of 5,000 and over according to the Census of 1911. Certain municipalities failed to return the schedule and could not, therefore, be included in the tables, which relate to cities and towns. Table 26 gives the general statistics relating to population, area, incorporation and mileage. The population figures are those of the local assessment, except where italicised, in which cases the population is as returned by the Census of 1911. The street mileage is distinguished as between macadamized roads and permanent roads, the latter including asphalt, tar-macadam and other forms of permanent roadway. In a few municipalities the macadam roads include or consist of gravel, rocmac, graded or rocked roads; also in some municipalities the sewer mileage includes storm sewers as well as sanitary sewers. In Table 27, showing the assessment and valuation of property, the headings are abbreviated in order to save space: they show the amount of the local improvement assessment; under the column headed "Exemptions" the value of property exempt from taxes or liable for local improvements only; the assessed valuation of all taxable property; the general assessment rate in mills on the dollar and the total amount of taxes levied. Table 28 shows receipts, expenditure, debentures, sinking funds, assets and liabilities. The figures throughout relate to the calendar year, and the amounts of the debentures, sinking funds, assets and liabilities are as standing at the close of the year.

## 26.—General Statistics of Cities and Towns, 1916.

Cities and Towns.	Population.	Area of Municipality.		Year of Incorporation.		Mileage of Streets and Sewers.				
		Land Acres.	Water Acres.	Original.	Latest.	Total Street.	Macadamized Roads.	Permanent Roads.	Permanent Sidewalks.	Sewers.
P. E. Island— Charlottetown..	12,000	836	—	1855	—	19	9	—	15½	16
Nova Scotia— Amherst.....	11,000	13,000	18	1889	—	36	4½	—	12	19
New Glasgow...	8,500	2,560	100	1875	—	35	33	2	4	30
Sydney Mines...	9,054	2,953	10	1889	—	20	20	—	1½	8
Truro.....	7,500	4,000	—	1875	—	30	—	2	6	14
Yarmouth.....	7,090	3,175	25	1890	—	34	7	27	1½	8
New Brunswick— Fredericton....	8,000	15,360	—	1848	—	7	—	1½	—	12½
Moncton.....	15,000	2,093	—	1875	1890	30	1	2	28½	21
St. John.....	about 60,000	13,440	—	1785	1912	67	44	6.24	70	43
Quebec— Chicoutimi....	7,000	1,200	—	1878	—	12½	3	—	4	7½
Fraserville....	7,167	4,000	150	1874	1910	17	5	12	3	18
Hull.....	22,190	4,000	300	1875	1893	50	2.50	8	20	9
Joliette.....	8,625	1,243	45	1863	1915	16	1.93	1.93	10.25	10.15
Lachine.....	15,500	2,860	—	1872	1910	23	19	4	29	24
Levis.....	8,149	1,064	—	1861	1916	15½	½	½	—	—
Maisonneuve....	33,001	1,157	—	1883	1898	36½	22.83	13.67	30	37.75

## FINANCE.

## 26.—General Statistics of Cities and Towns, 1916—concluded.

Cities and Towns.	Popula- tion.	Area of Municipality.		Year of Incorporation.		Mileage of Streets and Sewers.					
		Land Acres.	Water Acres.	Origin- al.	Latest.	Total Street.	Macad- amized Roads.	Perma- nent Roads.	Perma- nent Side- walks.	Sewers.	
Quebec—con.											
Montreal.....	650,000	26,402	-	1832	1899	767.5	333	220	450	360 <sup>2</sup>	
Quebec.....	100,000	5,660	-	1832	-	91	31	60	80	57	
Sherbrooke.....	20,470	3,104	228	-	1907	36.5	7.5	-	4.12	23.5	
Sorel.....	8,500	2,000	-	1860	1889	14.0	6	Nil	5	8	
St. Hyacinthe.....	12,228	1,800	a few	1857	1915	-	-	1.66	30	16	
Thetford Mines.....	7,200	1,532	None	1905	1910	11.33	5.78	1.39	17.15	15	
Three Rivers.....	20,000	2,560	-	1857	1915	26	9.70	-	42	-	
Valleyfield.....	9,575	-	-	1874	1893	-	-	-	-	-	
Westmount.....	18,260	976	-	1874	1908	27.21	26.41	8	49.82	29.36	
Ontario—											
Barrie.....	6,488	2,550	-	1853	1871	-	1	1	24	12	
Brantford.....	26,601	2,851	125	1847	1877	70	65.5	5.75	82.5	68	
Brookville <sup>2</sup> .....	9,428	1,242 <sup>2</sup>	-	1832	-	26	20	2.6	30.5	16	
Cobalt.....	4,974	417	-	1906	-	7	1	3	$\frac{1}{2}$	4.5	
Cobourg.....	4,875	2,560	-	-	-	-	-	-	4	5.5	
Collingwood.....	7,010	4,440	-	1858	-	-	No record	-	-	-	
Cornwall.....	6,800	750	-	1847	-	-	13	None	20	9	
Galt.....	11,920	1,525	75	1850	1915	41.5	6.5	2	50	50	
Guelph.....	16,022	3,104	-	-	1879	-	-	4.20	60.50	19	
Hamilton.....	104,491	7,143	-	1847	-	168	75	48	248	138.38	
Kenora.....	5,278	4,150	1,380	-	1892	-	3.5	-	-	-	
Kingston.....	22,000	2,136	-	1846	-	-	39	35	60.74	30.75	
Kitchener.....	19,380	3,282	-	1854	1912	68	26	11	60	36	
London.....	57,301	6,302	-	1855	-	136	1.9	41	169	81	
Niagara Falls.....	11,715	1,500	-	1862	1904	47.5	12.5	2.46	50	29.4	
North Bay.....	9,855	2,100	-	1890	-	30	5.23	23.85	17.8	5	
Oshawa.....	8,812	2,400	-	1850	1878	40	-	7	25	17	
Ottawa.....	100,561	5,295	856	1827	1854	156	102	54	210	139	
Peterboro <sup>2</sup> .....	19,816	2,532	289	1850	1905	55	19	4.63	69.2	34.26	
Port Arthur.....	15,224	9,127	1,148	1886	1908	-	25.6	4.4	28.93	9.1	
Port Hope.....	4,675	1,080	-	1834	-	30	-	-	35	9	
Sault Ste. Marie.....	12,714	3,100	-	1887	1912	38	8.4	4.7	26.3	15.5	
St. Catharines.....	17,880	2,400	-	-	-	59	2 $\frac{1}{2}$	19 $\frac{1}{2}$	32	35	
Stratford.....	17,371	2,835	-	1854	1885	62	8	12.2	56.23	41.75	
Toronto.....	463,705	20,480	4,544	1834	-	530.24	29.53	326.78	710.43	540.70	
Welland.....	7,905	1,200	-	1878	-	25	2	3.2	28.33	15	
Windsor.....	24,182 <sup>2</sup>	2,400	-	1854	1892	75 <sup>2</sup>	2.70	36.95	119	43	
Woodstock.....	10,004	1,525	-	1853	1901	45	19	7	30.5	21	
Manitoba—											
Brandon.....	18,048	5,460	300	1883	-	60	2.75	4	54.36	34.70	
St. Boniface.....	11,581	11,290	-	1883	1908	60	$\frac{1}{2}$	19	13	28	
Winnipeg.....	201,981	14,865	422	1873	-	500	33	145.3	132	253	
Saskatchewan—											
Moosejaw.....	16,934	9,760	-	1903	-	348	-	4.75	40.2	44.2	
Prince Albert.....	6,436	9,713	845.5	1885	1904	85	1	45	30	29	
Regina.....	26,127	8,427	-	1903	-	105	-	30	42.76	69.6	
Saskatoon.....	21,048	8,480	480	1903	1906	65.76	5.76	60	52.8	51.18	
Alberta—											
Calgary.....	56,514	24,720	1,200	1832	1894	-	-	62	160.85	200.26	
Lethbridge.....	9,436	6,944	-	1890	1906	-	-	1.57	38.16	31.13	
Medicine Hat.....	9,272	11,280	597	-	1906	75	-	18 <sup>1</sup>	28	33.18	
British Columbia—											
Nanaimo.....	8,500	630	-	1874	-	-	14.2	-	29	-	
New Westmin- ster.....	15,000	3,481	-	1872	1888	102	25	10.2	23	52	
Vancouver.....	97,000	10,547	3,833	1886	-	360 <sup>2</sup>	180	61	210	203	
Victoria.....	50,000 <sup>2</sup>	4,640	-	1862	-	200	78	122	132.4	129	

<sup>1</sup> Gravel roads.<sup>2</sup> 1915.<sup>3</sup> Estimated, including suburbs.

## MUNICIPAL STATISTICS.

## 27.—Assessment and Valuation of Property of Cities and Towns, 1916.

Cities and Towns.	Local Improve- ment Assess- ment.	Exemptions.	Value of Taxable Property.	General Assess- ment Rate.	Taxes Levied.
	\$	\$	\$	Mills per \$	\$
P. E. Island—					
Charlottetown.....	—	1,000,000	4,876,132	13.75	80,000
Nova Scotia—					
Amherst.....	—	650,000	4,812,350	32.00	133,547
New Glasgow.....	4,000	250,000	4,431,050	17.50	75,044
Sydney Mines.....	None	3,944,130 <sup>1</sup>	1,842,982	25.00	46,077
Truro.....	—	500,000	3,460,800	21.00	72,975
Yarmouth.....	—	Not given	3,750,970	21.00	80,808
New Brunswick—					
Fredericton.....	—	2,500,000	6,113,293	20.00	125,000
Moncton.....	None	7,000,000	9,584,766	17.50	189,260
St. John.....	None	5,000,000	38,430,400	19.50	835,092
Quebec—					
Chicoutimi.....	—	3,355,833	6,122,060	23.50	78,336
Fraserville.....	168,000	3,084,085	2,300,342	17.50	88,411
Hull.....	—	3,049,475	7,419,628	13.30	157,097
Lachine.....	—	2,390,200	14,628,655	19.50	213,534
Levis.....	—	1,727,276	3,326,751	11.75	41,900
Maisonneuve.....	—	25,087,895	30,921,810	18.00	290,553
Montreal.....	3,916,099	204,812,377	611,294,255	14.00	10,538,230
Quebec.....	—	18,091,300	66,287,589	19.30	1,501,219
Sherbrooke.....	Nil	1,893,900	10,500,120	<div style="display: inline-block; vertical-align: middle;"> <div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 5px;">{</div> <div> P. 7.50 C. 6.00 Gen'l. 10.00 </div> </div> </div>	131,223
St. Hyacinthe.....	—	1,284,115	5,269,977	16.90	69,219
Sorel.....	—	1,538,500	2,645,000	12.50	23,800
Thetford Mines.....	None	9,000,000 <sup>2</sup>	2,841,833	15.00	52,482
Three Rivers.....	None	5,478,100	9,368,775	18.80	197,703
Valleyfield.....	None	88,400	2,104,600	17.70	65,880
Westmount.....	109,475	9,447,630	44,260,850	17.25	500,207

NOTE—P=Protestant School rate.

C=Catholic School rate.

<sup>1</sup>Including a special exemption. <sup>2</sup>Including Mines.



## FINANCE.

## 27.—Assessment and Valuation of Property of Cities and Towns, 1916.—con.

Cities and Towns.	Local Improvement Assessment.	Exemptions.	Value of Taxable Property.	General Assessment Rate.	Taxes Levied.
	\$	\$	\$	Mills per \$	\$
Ontario—					
Barrie.....	3,307	499,510	3,491,900	32.00	113,457
Brantford.....	—	3,748,450	18,193,080	27.50	446,000
Brockville.....	—	774,145	4,250,754	29.50	162,718
Cobalt.....	None	164,325	3,890,274	36.00	100,819
Cobourg.....	5,237	Not given	2,187,098	32.00	76,583
Collingwood.....	8,838	139,975	3,605,519	35.00	112,870
Cornwall.....	—	374,075	2,248,193	32.00 P.S. 35.00 S.S.	75,436
Galt.....	7,802,935	1,432,285	7,424,815	29.00	231,587
Guelph.....	—	2,440,795	9,179,135	29.00	328,410
Hamilton.....	260,716	17,173,113	80,992,370	22.00	1,732,300
Kenora.....	6,469	1,054,175	2,926,915	Not given	99,529
Kingston.....	4,764,345	4,764,345	11,080,694	26.00	392,337
Kitchener.....	—	1,487,459	10,273,319	26.00	392,608
London.....	314,150	7,423,422	49,033,558	29.65	1,418,312
Niagara Falls.....	25,404	600,000	8,843,775	25.00	219,053
North Bay.....	7,097	772,550	6,563,635	25.50	168,969
Oshawa.....	14,285	479,825	4,062,031	28.00	130,727
Ottawa.....	276,030	37,199,320	111,015,510	19.30 P.S. 23.10 S.S.	2,221,421
Peterboro.....	—	2,698,926	12,970,040	26.50	365,394
Port Arthur.....	138,477	4,557,530	25,607,630	21.00	632,893
Port Hope.....	971	218,640	2,584,600	29.00	70,901
Sault Ste. Marie....	37,622	967,500	9,803,885	23.50 P.S. 25.10 S.S.	300,254
St. Catharines.....	—	1,639,875	13,236,285	25.50	446,055
Stratford.....	73,446	2,277,475	8,564,670	29.30	351,018
Toronto.....	1,807,063	81,527,839	582,619,762 <sup>1</sup>	22.50	13,090,073
Welland.....	23,414	800,340	5,497,925	30.00	160,390
Windsor.....	88,723	3,084,225	22,531,214	23.00	602,780
Woodstock.....	17,640	1,213,050	5,138,002	29.00	173,095

NOTE—P.S.—Public School rate.

S.S.—Separate School rate.

<sup>1</sup>Includes Business and Income. <sup>2</sup>The Municipalities of East Toronto, North Toronto and West Toronto have been annexed.

## MUNICIPAL STATISTICS.

27.—Assessment and Valuation of Property of Cities and Towns, 1916—concluded.

Cities and Towns.	Local Improve- ment Assess- ment.	Exemptions.	Value of Taxable Property.	General Assess- ment Rate.	Taxes Levied.
	\$.	\$	\$	Mills per \$	\$
Manitoba—					
Brandon.....	109,245	3,992,308	15,609,320	26.00	515,112
St. Boniface.....	140,776	3,405,290	18,287,060	26.00	634,380
Winnipeg.....	1,375,489	44,757,910	278,732,370	15.70 <sup>1</sup>	6,087,290
Saskatchewan—					
Moosejaw.....	72,634	5,689,900	37,824,800	18.85 Gen'l. 5.00 P.S. 9.70 S.S.	877,052
Prince Albert.....	Nil.	2,057,540	18,080,168	18.00	434,594
Regina.....	188,385	17,102,505	68,073,210	23.30 P.S. 28.60 S.S.	1,331,857
Saskatoon.....	129,358	2,842,610	40,489,437	19.55	869,373
Alberta—					
Calgary.....	427,500	about 7,000,000	80,608,781 <sup>2</sup>	21.50	2,317,348
Lethbridge.....	3,301,490	6,322,260	12,287,930	33.00	460,024
Medicine Hat.....	42,287	1,524,120	14,848,260	25.00	422,190
British Columbia—					
Nanaimo.....	—	180,850	2,721,120	19.00	—
New Westminster..	70,252	4,526,127	15,068,725	26.40 gross 22.00 net	397,022
Vancouver.....	616,123	74,895,475 <sup>3</sup>	214,358,910	24.44 gross 22.00 net	3,409,089
Victoria.....	681,595	10,122,520	62,641,220 <sup>4</sup>	19.58	1,294,930

NOTE—P.S.=Public School rate.

S.S.=Separate School rate.

<sup>1</sup>In addition there is a business tax of 6½ p.c. <sup>2</sup>For 1917. <sup>3</sup>Assessed valuation of buildings or improvements exempt by by-law. <sup>4</sup>Land only. The valuation of buildings assessed but not taxed = \$25,002,431.

## FINANCE.

## 28.—Receipts, Expenditure, Assets and Liabilities of Cities and Towns, 1916.

Cities and Towns.	Receipts.	Expenditure.	General Debentures.	Local Improvement Debentures.	Sinking Funds.	Total Assets.	Total Liabilities.
P. E. Island—	\$	\$	\$	\$	\$	\$	\$
Charlottetown.....	78,000	92,366	670,500	1	72,629	1,088,108	936,935
Nova Scotia—							
Amherst.....	171,212	180,892	943,500	1	139,043	1,104,847	969,820
New Glasgow.....	235,265	235,265	772,930	70,500	62,614	821,892	807,664
Sydney Mines.....	104,532	102,703	279,500	—	63,458	382,302	291,415
Truro.....	114,326	114,623	728,110	None	161,316	921,941	732,810
Yarmouth.....	103,810	105,589	442,000	—	11,381	546,881	443,905
New Brunswick—							
Fredericton.....	233,193	229,183	—	Not given	—	—	—
Moncton.....	191,827	188,037	1,814,193	None	123,802	1,936,458	1,871,248
St. John.....	1,459,894	1,459,894	4,884,197	—	1,152,806	7,496,051	4,937,922
Quebec—							
Chicoutimi.....	93,429	88,800	866,751	—	—	919,366	914,307
Fraserville.....	87,535	89,126	965,762	295,762	49,635	1,016,960	1,032,525
Hull.....	157,097	159,034	1,586,130 <sup>a</sup>	308,900	104,301	Being revised.	—
Joliette.....	185,508	179,590	469,500	—	30,203	787,881	552,415
Lachine.....	343,057	319,786	2,469,000	—	37,187	2,758,419	2,469,000
Levis.....	363,246	346,476	733,284	45,000	345	864,314	831,284
Maisonneuve.....	2,761,326	2,446,086	16,800,723	—	27,812	24,637,061	27,098,707
Montreal.....	12,564,786 <sup>a</sup>	13,803,869	97,306,990	—	1,576,605	Not comp.	101,535,391
Quebec.....	1,548,560	1,482,303	14,343,586	—	192,104	15,661,517	14,523,088
Sherbrooke.....	1,130,516	1,041,660	886,500	—	21,006	1,236,041	1,198,612
Sorel.....	71,438	82,000	545,000	225,000	Nil	665,800	721,700
St. Hyacinthe.....	79,406	84,875	348,177	—	4,972	666,096	71,583
Thetford Mines.....	54,344	48,442	314,000	1	5,000	459,480	382,075
Three Rivers.....	1,054,580	1,033,045	1,715,500	1,125,000	264,332	3,748,957	3,715,962
Valleyfield.....	81,627	121,067	677,000	—	15,000	747,072	681,787
Westmount.....	565,720	562,681	4,291,667	2,360,566 <sup>a</sup>	648,167	6,058,096	4,543,179
Ontario—							
Barrie.....	180,216	185,080	328,882	94,506	Nil	772,596	458,295
Brantford.....	1,104,456	1,104,456	1,760,005	795,848	877,380	4,256,680	3,602,571
Brookville.....	175,592	176,270	678,217	249,667	287,577	1,628,075	992,952
Cobalt.....	122,934	119,538	40,544	None	92,826	277,829	65,450
Cobourg.....	153,136	143,165	227,280	25,295	20,601	Not given	—
Collingwood.....	225,247	225,247	400,158	105,340	18,243	505,359	529,313
Cornwall.....	134,821 <sup>13</sup>	112,501	205,303	43,902	None	421,837	276,089
Galt.....	331,017	339,790	1,582,602	172,987	442,752	2,120,497	1,557,183
Guelph.....	901,686	896,606	1,598,492	667,626	605,018	2,380,965	1,813,981
Hamilton.....	2,632,653	2,802,828	9,672,033	2,377,444	1,859,667	19,542,661	13,502,417
Kenora.....	217,851	223,810	857,041	57,794	138,171	1,459,987	990,477
Kingston.....	368,160	375,391	1,432,179	245,052	192,269	1,593,261	1,752,068
Kitcheener.....	426,928	422,464	1,442,820	769,815	None	3,058,300	2,345,053
London.....	1,801,281	1,784,673	4,487,167	812,948	143,062	7,095,705	3,262,559
Niagara Falls.....	400,812	382,701	76,086	531,893	None	1,625,606	1,037,901
North Bay.....	314,667	299,963	496,628	298,807	—	1,051,469	1,003,334
Oshawa.....	145,704	167,768 <sup>a</sup>	317,302	206,448	None	605,433	603,840
Ottawa.....	4,257,203	4,631,996	4,348,464	5,226,565	3,727,486	19,233,231	17,643,135
Peterboro.....	393,434	372,288	1,923,351	413,035	520,940	2,732,904	2,341,386
Port Arthur.....	1,274,491	1,223,828	4,153,872	1,760,889	926,772	5,767,474	5,710,212
Port Hope.....	207,296	178,218	292,911	7,199	2,665	420,458	325,490
Sault Ste. Marie.....	337,173	332,234	1,078,858	460,367	252,102	2,534,430	2,137,960
St. Catharines.....	Not given	Not given	2,057,054	1,147,285	681,310	Not given	Not given
Stratford.....	1,019,123	1,016,042	1,246,397	73,446	528,432	925,000	2,040,612
Toronto.....	40,053,131	33,649,605 <sup>1</sup>	75,929,462	21,801,458	23,054,650	125,039,411	106,633,824
Welland.....	304,235	325,469	574,437	386,042	1,244,050	1,187,184	1,026,260
Windsor.....	840,808	823,986	1,378,296	947,214	20,555	3,000,763	2,828,400
Woodstock.....	310,342	310,103	789,951	151,398	321,020	1,173,383	840,268
Manitoba—							
Brandon.....	654,944	699,125	1,299,880	1,098,142	738,159	3,797,759	3,230,350
St. Boniface.....	702,272	728,461	1,318,894	2,589,743	876,402	5,148,296	4,900,920
Winnipeg.....	11,084,613	11,587,873	10,115,558	32,011,248 <sup>1</sup>	6,955,904	56,548,006	53,869,720

## MUNICIPAL STATISTICS.

28.—Receipts, Expenditure, Assets and Liabilities of Cities and Towns, 1916—  
concluded.

Cities and Towns.	Receipts.	Expenditure.	General Debentures.	Local Improvement Debentures.	Sinking Funds.	Total Assets.	Total Liabilities.
	\$	\$	\$	\$	\$	\$	\$
Saskatchewan—							
Moosejaw.....	1,317,579	1,038,038	2,703,844	3,000,836 <sup>9</sup>	425,715	9,398,764	6,882,724
Prince Albert.....	502,991	526,751	2,594,000 <sup>9</sup>	732,147	172,627	4,580,303	4,310,667
Regina.....	1,467,609	1,418,028	7,750,982	2,815,538	1,050,454	18,015,058	12,475,750
Saskatoon.....	1,685,265	1,649,824	6,461,732	1,472,087	1,072,595	12,269,174	11,067,770
Alberta—							
Calgary.....	3,552,280 <sup>10</sup>	3,637,284 <sup>10</sup>	16,120,221 <sup>10</sup>	4,366,315 <sup>11</sup>	2,950,797	28,631,769	27,161,295
Lethbridge.....	276,443	266,597	3,429,932	442,483	476,502	—	—
Medicine Hat.....	696,436	737,226	3,382,564 <sup>12</sup>	373,705	350,724	4,268,621	4,005,747
British Columbia—							
Nanaimo.....	125,824	139,777	698,000	339,025	165,788	1,180,988	1,104,058
New Westminster.....	736,460	735,761	4,541,906	1,363,926	366,859	7,413,959	6,139,945
Vancouver.....	4,899,272	4,769,594	29,209,791	6,374,643 <sup>11</sup>	5,082,270	50,582,966	40,704,514
Victoria.....	2,195,226	2,185,705	10,703,470	8,085,624	2,042,598	26,796,676	23,073,712

<sup>9</sup>Included with general debentures. <sup>10</sup>Includes \$836,024 Water Works Debentures. <sup>11</sup>Exclusive of \$2,000,000 deficiency loan. <sup>12</sup>Expended out of General Debenture Account. <sup>13</sup>Includes some local improvements paid by debenture. <sup>14</sup>Not including some receipts and expenditures of Water Commission, Light Commission, Public and High Schools and Library Board. <sup>15</sup>Amount of Local Improvement Debentures, Ratepayers share \$14,118,479; Amount of Water Work System Debentures, \$6,990,769; Amount of Hydro-Electric System Debentures \$7,402,000; Amount of School Debentures \$3,500,000. <sup>16</sup>Amount of Local Improvement Debentures \$897,714; Electric Light Debentures \$763,512; Amount of Water Works Debentures \$1,339,610. <sup>17</sup>Includes Electric Light Debentures \$457,274 and Water Works Debentures \$499,945. <sup>18</sup>Including Utilities. <sup>19</sup>Property owners share only. <sup>20</sup>Includes Electric Light and Power Debentures \$431,053; Natural Gas Debentures \$519,127 and Water Works Debentures \$1,068,598. <sup>21</sup>Includes \$30,000 Water Works Debentures.

**Ontario Hydro-Electric Power Commission.**—The Canada Year Book of 1910 (p. xliii) described the installation on October 11, 1910, at Berlin, now Kitchener, Ontario, of electrical energy generated by the Niagara Falls and the initial work carried out by the Ontario Hydro-Electric Power Commission for the supply of electrically generated power to 15 municipalities. During the last seven years the operations of the Commission have rapidly extended until in 1917 about 100 Ontario municipalities derive electrical power from the Niagara Falls and other Ontario water systems of the Commission. Table 29, on pages 548 to 551, gives for 1915 the financial statistics of the electrical installations of 99 municipalities. It shows that the total cost of the plant erected was \$14,873,348, that the cost of operations for the year 1915 was \$3,367,276 and that the revenue was \$4,069,817, leaving a surplus of \$702,541. The total number of consumers in the 99 municipalities for 1915 was 120,828, as compared with 96,744 in 1914. Of the total in 1915 95,591 were domestic, 21,419 were commercial and 3,818 were power consumers. The total horse power taken in December 1915 was 100,242, as compared with 70,698 in December 1914. Table 30 is a detailed statement of the assets and liabilities of the municipalities served by the Commission for the three years 1913, 1914 and 1915. The total assets, it will be noticed, have grown from \$11,907,827 in 1913 to \$17,683,264 in 1915.



## FINANCE.

### 29.—Financial Statistics of Electrical Installations of Municipalities served by the Ontario Hydro-Electric Power Commission, 1915.

(From the Annual Report for 1915 of the Ontario Hydro-Electric Power Commission.)

Municipality.	Months.	Cost of Plant.	Debentures and Construction Overdraft.	Operation and Maintenance.	Fixed Charges.	Total Operation.	Revenue.
		\$	\$	\$	\$	\$	\$
Toronto.....	12	6,884,709	6,677,520	956,481	362,340	1,318,822	1,589,117
Ottawa.....	12	887,204	550,941	129,523	40,366	169,889	203,244
Hamilton.....	12	1,020,067	981,758	182,762	60,946	243,708	300,432
London.....	12	723,930	562,671	186,573	38,494	225,067	285,630
Brantford.....	12	257,996	228,723	36,930	14,686	51,616	66,296
Windsor.....	12	389,025	399,011	53,451	13,039	66,490	71,815
Peterboro.....	12	173,321	159,102	73,451	13,373	86,824	98,042
Kitchener.....	12	346,168	197,326	67,382	13,437	85,819	110,380
Port Arthur.....	12	670,303	510,314	82,067	46,493	128,560	162,498
St. Catharines.....	12	198,731	187,309	31,893	9,724	41,527	50,646
Stratford.....	12	219,160	175,731	46,327	14,399	60,726	64,066
Guelph.....	12	218,065	115,452	54,275	10,273	64,548	77,858
St. Thomas.....	12	182,122	118,035	63,406	8,360	71,766	89,904
Chatham.....	12	129,781	137,533	11,712	5,464	17,176	16,454
Galt.....	12	256,668	185,024	42,656	13,269	55,955	60,721
Woodstock.....	12	190,428	71,038	30,905	7,291	38,196	51,417
Welland.....	12	95,886	102,756	34,372	8,660	43,032	50,887
Barrie.....	12	106,834	49,871	20,417	6,052	26,469	30,449
Midland.....	12	78,673	39,363	12,987	3,827	16,814	24,405
Collingwood.....	12	60,600	35,985	17,639	3,557	21,196	27,025
Ingersoll.....	12	95,706	75,366	21,395	5,046	26,441	31,624
Preston.....	12	105,610	78,794	25,475	7,213	32,688	35,648
Waterloo.....	12	95,335	62,628	22,179	4,285	26,464	31,861
Dundas.....	12	73,103	62,061	10,892	5,707	16,599	19,842
Goderich.....	12	76,565	50,158	10,979	4,447	15,426	22,309
Walkerville.....	12	137,221	136,786	51,383	7,957	59,340	64,981
Paris.....	12	96,738	62,593	11,440	7,966	19,406	20,039
Simcoe.....	9	31,985	35,716	3,136	-	3,136	5,226
Brampton.....	12	79,209	63,071	17,523	4,799	22,322	27,087
Penetang.....	12	43,905	29,909	12,756	1,981	14,737	17,019
Wallaceburg.....	11	45,276	46,638	7,417	3,581	10,998	11,087
St. Mary's.....	12	78,870	47,021	11,733	4,775	16,508	21,704
Tilsonburg.....	12	38,407	33,425	11,102	2,675	13,777	16,235
Strathroy.....	12	42,675	42,428	7,133	2,720	9,853	13,005
Prescott.....	12	53,538	22,554	9,672	2,233	11,905	13,023
Hespeler.....	12	31,622	26,862	9,295	3,144	12,439	15,675
Elmira.....	12	18,828	19,494	4,536	1,357	5,893	8,219
Weston.....	12	33,558	20,035	8,402	2,352	10,754	14,228
Clinton.....	12	39,926	39,163	6,763	2,643	9,406	9,556
Georgetown.....	12	26,807	19,786	10,177	1,930	12,107	15,975
Mimico.....	12	25,980	20,317	4,551	1,791	6,342	9,153
Milton.....	12	28,679	21,275	8,015	2,270	10,285	10,822
Seaforth.....	12	29,944	23,107	11,060	1,662	12,722	15,018
Acton.....	12	15,928	10,139	3,386	1,124	4,510	6,420
Tilbury.....	8	13,203	15,224	2,256	668	2,924	3,190
Mitchell.....	12	27,373	9,810	6,196	2,124	8,320	9,392
New Hamburg.....	12	24,597	17,727	4,846	1,304	6,150	8,166
Fergus.....	13	16,245	17,262	3,928	968	4,896	6,409
Dresden.....	8	17,686	18,455	2,684	755	3,439	3,570
Pt. Dalhousie.....	12	14,865	14,495	3,681	629	4,310	4,829
Norwich.....	12	15,877	13,865	4,444	1,985	6,429	9,405

## MUNICIPAL ELECTRICAL INSTALLATIONS.

## 29.—Financial Statistics of Electrical Installations of Municipalities served by the Ontario Hydro-Electric Power Commission, 1915.

(From the Annual Report for 1915 of the Ontario Hydro-Electric Power Commission.)

Surplus.	Deprecia- tion Charge.	Surplus less Deprecia- tion Charge.	Assets.	Liabilities	Reserves <sup>1</sup> .	Ratio of Net Debt to total Assets.	Municipality.
\$	\$	\$	\$	\$	\$	p. c.	
270,295	-	270,295	8,309,211	7,148,851	1,160,360	86.0	Toronto
33,355	33,000	355	1,077,512	712,665	364,847	66.1	Ottawa
56,724	25,809	30,915	1,203,062	1,037,651	165,411	86.3	Hamilton
60,563	32,735	27,828	1,073,533	831,032	242,501	77.4	London
14,680	10,000	4,680	271,444	238,952	32,492	88.1	Brantford
5,325	-	5,325	404,415	394,516	9,899	97.5	Windsor
11,218	7,500	3,718	183,496	163,468	20,028	90.0	Peterboro
21,561	13,500	11,061	381,770	253,800	127,970	66.5	Kitchener
33,938	-	33,938	778,726	578,790	199,936	-	Port Arthur
9,119	7,250	1,869	206,783	191,529	15,254	92.6	St. Catharines
3,340	5,250	1,910	249,303	189,285	60,018	75.9	Stratford
13,310	10,500	2,810	271,580	131,224	140,356	48.3	Guelph
18,138	8,735	9,403	217,646	118,035	99,611	54.2	St. Thomas
722	-	722	139,810	138,672	1,138	-	Chatham
13,706	10,000	3,766	278,720	205,483	73,237	70.4	Galt
11,221	6,725	4,496	202,341	107,386	94,955	53.1	Woodstock
7,856	4,425	3,430	118,191	106,322	11,869	90.0	Welland
3,980	3,500	480	120,087	49,871	70,216	41.5	Barrie
7,500	3,400	4,101	93,813	39,362	54,451	42.0	Midland
5,829	2,000	3,229	70,831	35,985	34,846	50.5	Collingwood
1,180	3,200	1,953	112,256	83,755	28,501	76.8	Ingersoll
2,960	3,800	840	110,961	78,794	32,167	71.0	Preston
3,345	4,000	1,397	103,866	64,356	39,510	63.5	Waterloo
3,240	2,900	343	74,913	62,061	12,852	82.3	Dundas
4,880	3,750	3,133	87,102	59,926	27,176	60.7	Goderich
5,641	-	5,641	145,530	136,786	8,744	94.0	Walkerville
4,630	-	633	101,133	66,947	34,186	66.3	Paris
2,000	-	2,090	37,806	35,716	2,090	94.4	Simcoe
1,765	3,000	1,765	85,002	63,071	21,931	74.2	Brampton
2,282	2,000	282	48,078	29,909	18,169	62.2	Penetang
80	-	89	47,337	46,638	699	98.5	Wallaceburg
5,196	3,600	1,596	86,789	48,616	38,173	56.0	St. Mary's
2,380	1,875	583	47,696	34,305	13,391	71.9	Tillsonburg
3,100	1,500	1,652	46,325	42,428	3,897	91.6	Strathroy
1,388	2,000	832	54,439	23,014	31,425	42.3	Prescott
3,000	1,750	1,486	35,437	26,862	8,575	75.7	Hespeler
1,200	750	1,576	24,065	19,494	4,571	81.0	Elmira
3,154	1,820	1,954	37,176	20,035	17,141	53.9	Weston
1,000	800	70	42,712	40,747	1,965	95.4	Clinton
1,280	1,280	2,588	28,868	19,786	9,082	68.5	Georgetown
2,800	1,200	1,611	27,104	20,317	6,787	74.9	Mimico
500	1,000	553	34,470	21,274	13,196	61.7	Milton
2,200	1,450	846	35,282	25,000	10,282	70.8	Scaforth
1,000	500	1,410	22,561	14,295	8,266	63.4	Acton
200	-	266	15,617	15,224	393	97.6	Tilbury
1,000	1,000	72	29,865	9,810	20,055	32.8	Mitchell
2,000	900	1,116	30,394	17,727	12,667	58.1	New Hamburg
1,000	650	863	18,996	17,262	1,734	90.8	Fergus
100	-	131	18,874	18,455	419	98.0	Dresden
700	415	104	15,963	14,465	1,468	90.8	Pt. duHousie
2,970	1,195	1,781	21,305	13,865	7,440	65.1	Norwich

<sup>1</sup>Includes Debentures Paid, Sinking Fund and Depreciation, Reserves and Surplus.

## FINANCE.

29.—Financial Statistics of Electrical Installations of Municipalities served by the  
Ontario Hydro-Electric Power Commission, 1915—concluded.

(From the Annual Report for 1915 of the Ontario Hydro-Electric Power Commission.)

Municipality.	Months.	Cost of Plant.	Debentures and Construction Overdraft.	Operation and Maintenance	Fixed Charges.	Total Operation.	Revenue.
		\$	\$	\$	\$	\$	\$
Flora.....	12	12,661	12,210	2,833	846	3,679	4,277
Caledonia.....	12	6,627	4,590	981	362	1,343	2,182
Vict. Harbor.....	3	5,222	6,758	221	—	221	365
New Toronto.....	12	10,990	9,244	2,174	654	2,828	4,339
Waterford.....	9	7,803	7,061	1,059	979	2,038	2,124
Hagersville.....	12	9,955	7,754	3,821	578	4,399	6,400
Winchester.....	12	10,875	10,715	3,080	796	3,876	4,535
Beaverton.....	12	13,736	15,561	4,238	885	5,123	4,258
Stayner.....	12	10,506	9,293	2,743	785	3,528	4,231
Pt. Credit.....	12	11,747	8,509	1,977	537	2,514	3,798
Cannington.....	14	13,136	15,984	4,338	1,007	5,345	4,186
Ayr.....	11	9,674	9,508	1,614	1,119	2,733	3,106
Dutton.....	3	7,782	8,407	549	145	694	890
Chesterville.....	12	7,296	7,924	2,306	573	2,879	2,796
Pt. Stanley.....	12	21,372	17,507	5,783	1,233	7,016	8,426
Waterdown.....	12	10,265	7,430	2,231	1,243	3,474	5,046
Elm Vale.....	12	8,327	7,030	1,864	546	2,410	3,293
Lucan.....	11	11,276	12,510	1,951	413	2,364	2,343
Baden.....	12	6,722	5,413	4,606	374	4,980	6,107
Thamesville.....	3	10,689	11,387	697	—	697	917
Bothwell.....	3	5,613	5,880	481	—	481	641
Burford.....	6	5,393	5,289	649	201	850	803
Bolton.....	10	11,796	12,051	1,660	552	2,212	2,304
Woodbridge.....	12	8,519	8,500	1,123	239	1,362	2,269
Rockwood.....	12	6,232	3,546	1,284	446	1,730	2,398
Coldwater.....	12	8,165	6,891	1,557	482	2,039	2,470
Waubashene.....	11	3,810	4,165	752	221	973	1,146
St. George.....	4	4,943	2,147	475	172	647	856
Princeton.....	11	2,456	3,550	519	263	782	852
Creemore.....	12	8,679	8,979	3,002	510	3,512	3,435
Sunderland.....	14	6,209	6,801	2,287	399	2,686	2,078
Plattsville.....	12	4,641	5,177	2,131	386	2,517	2,655
Beachville.....	12	8,933	5,092	4,819	358	5,177	6,683
Brechin.....	12	2,298	3,684	2,664	97	2,761	1,681
Comber.....	7	5,364	5,244	756	173	929	938
Drumbo.....	12	3,754	4,432	847	281	1,128	1,208
Delaware.....	10	2,871	4,024	289	77	366	448
Dorchester.....	12	4,318	4,300	642	160	802	1,263
Embro.....	11	7,476	7,405	930	285	1,215	1,510
Lynden.....	2	3,360	5,262	56	—	56	156
Lambeth.....	9	4,211	5,716	1,381	156	1,537	1,318
Mt. Brydges.....	9	4,189	4,452	1,165	359	1,524	1,395
Pt. McNicoll.....	11	4,503	4,769	824	203	1,027	1,077
Thamesford.....	12	5,249	4,265	1,187	209	1,396	1,948
Woodville.....	14	4,922	7,163	3,897	296	4,193	2,545
Williamsburg.....	8	2,274	2,940	431	211	642	699
Thorndale.....	12	3,045	2,722	1,127	12	1,139	1,510
Toronto Twps.....	12	2,123	1,315	3,236	3,482	6,718	8,615
<b>Totals.....</b>		<b>14,873,348</b>	<b>12,982,294</b>	<b>2,552,832</b>	<b>814,444</b>	<b>3,367,276</b>	<b>4,069,817</b>

## MUNICIPAL ELECTRICAL INSTALLATIONS.

## 29.—Financial Statistics of Electrical Installations of Municipalities served by the Ontario Hydro-Electric Power Commission, 1915—concluded.

(From the Annual Report for 1915 of the Ontario Hydro-Electric Power Commission.)

Surplus.	Depreciation Charge.	Surplus less Depreciation Charge.	Assets.	Liabilities.	Reserves <sup>1</sup> .	Ratio of Net Debt to total Assets.	Municipality.
\$	\$	\$	\$	\$	\$	p. c.	
598	460	138	13,268	12,210	1,058	92.0	Elora
819	300	519	6,844	4,590	2,254	67.6	Caledonia
144	-	144	6,902	6,758	144	97.9	Vict. Harbor
1,511	550	961	11,338	9,245	2,093	81.5	New Toronto
86	-	86	8,090	7,062	1,028	83.5	Waterford
2,091	500	1,591	11,187	7,754	3,433	69.0	Hagersville
659	465	194	13,378	10,715	2,663	80.1	Winchester
865	-	865	15,870	15,561	309	-	Beaverton
703	300	403	11,214	9,293	1,921	82.7	Stayner
1,284	600	684	12,914	8,509	4,405	66.0	Pt. Credit
1,159	-	1,159	16,149	15,984	165	-	Cannington
373	250	122	9,881	9,508	373	96.2	Ayr
196	-	196	8,603	8,407	196	97.7	Dutton
83	-	83	8,313	7,924	389	95.4	Chesterville
1,419	740	670	25,867	17,507	8,360	67.7	Pt. Stanley
1,572	1,000	572	11,543	7,430	4,113	64.4	Waterdown
883	385	498	8,674	7,030	1,644	81.0	Elmvale
21	-	21	12,510	12,510	-	100.0	Lucan
1,127	300	827	8,707	5,413	3,294	62.2	Baden
220	-	220	11,607	11,387	220	96.0	Thamesville
160	-	160	6,035	5,875	160	97.0	Bothwell
47	-	47	5,440	5,289	151	97.0	Burford
92	-	92	12,286	12,051	235	98.0	Bolton
907	425	482	9,407	8,500	907	89.0	Woodbridge
668	300	368	6,312	3,546	2,766	56.2	Rockwood
431	380	51	9,361	6,891	2,470	73.6	Coldwater
173	-	173	4,337	4,164	173	96.0	Waubesahe
209	-	209	6,438	6,147	291	95.6	St. George
70	-	70	3,619	3,496	123	96.5	Princeton
77	-	77	9,293	8,979	314	91.5	Creemore
608	-	608	6,965	6,801	164	100.0	Sunderland
138	-	138	5,394	5,177	217	96.1	Plattsville
1,506	420	1,086	10,528	5,092	5,436	49.1	Beachville
1,080	-	1,080	3,684	3,684	-	100.0	Brechin
9	-	9	5,389	5,244	145	97.6	Comber
80	-	80	4,580	4,432	148	96.8	Dumbo
82	-	82	4,106	4,024	82	98.0	Delaware
461	200	261	4,761	4,300	461	89.5	Dorchester
295	250	45	7,700	7,405	295	96.0	Embro
100	-	100	5,362	5,262	100	98.1	Lynden
219	-	219	5,716	5,716	-	100.0	Lambeth
129	-	129	4,510	4,452	58	99.0	Mt. Brydges
50	-	50	4,819	4,769	50	99.0	Pt. McNicoll
552	250	302	5,494	4,265	1,229	77.6	Thamesford
1,648	-	1,648	7,218	7,163	55	-	Woodville
57	-	57	3,030	2,910	140	95.5	Williamsburg
371	135	236	3,414	2,722	692	79.8	Thorndale
1,897	1,809	97	4,951	1,315	3,636	26.6	Toronto Twps.
702,541	240,644	461,897	17,683,264	14,201,344	3,481,920	.....	Total

<sup>1</sup>Includes Debentures Paid, Sinking Fund and Depreciation, Reserves and Surplus.



	1913.	1914.	1915.
Number of Municipalities.	45	69	99
<b>Assets—</b>	\$	\$	\$
Lands and Buildings.....	626,707	791,732	873,833
Sub-Station Equipment.....	1,090,876	1,476,088	1,582,063
Distribution System, Overhead.....	2,640,837	3,422,704	4,234,626
" " Underground.....	644,514	807,153	928,421
Line Transformers.....	615,546	787,613	981,755
Meters.....	840,607	1,172,475	1,418,165
Street Lighting Equipment, Reg.....	560,615	1,071,255	1,309,628
" " Ornamental.....	62,765	270,387	197,645
Miscel. Equipment and Const. Exp....	866,552	2,062,036	1,701,183
Steam and Hydraulic Plant.....	1,401,173	420,108	461,651
Old Plant.....	341,277	478,882	415,518
Other Miscellaneous Assets.....	—	140,632	768,855
<b>Total Plant.....</b>	<b>10,081,469</b>	<b>12,901,125</b>	<b>14,873,348</b>
<b>Bank and Cash Balance.....</b>	<b>450,888</b>	<b>422,350</b>	<b>284,654</b>
Inventories.....	344,488	561,873	602,920
Accounts Receivable.....	540,275	615,227	726,557
Sinking Fund.....	431,747	625,217	868,984
Other Assets.....	58,960	123,411	326,801
<b>Total Liquid Assets.....</b>	<b>1,825,358</b>	<b>2,348,078</b>	<b>2,809,916</b>
<b>Total Assets.....</b>	<b>11,907,827</b>	<b>15,249,203</b>	<b>17,683,264</b>
<b>Liabilities—</b>			
Debenture Balance.....	8,711,308	10,678,078	11,831,811
Accounts Payable.....	1,553,712	1,682,150	2,040,038
Bank Overdraft.....	160,919	228,623	292,107
Other Liabilities.....	42,413	113,839	37,388
<b>Total Liabilities.....</b>	<b>10,468,352</b>	<b>12,702,690</b>	<b>14,201,344</b>
<b>Reserves—</b>			
Debentures Paid.....	202,751	320,129	394,466
Sinking Fund Reserve.....	431,747	625,217	868,984
Depreciation Reserve.....	478,146	850,618	817,183
Surplus.....	326,831	750,549	1,401,287
<b>Total Reserves.....</b>	<b>1,439,475</b>	<b>2,546,513</b>	<b>3,481,920</b>
<b>Total Liabilities and Reserves.....</b>	<b>11,907,827</b>	<b>15,249,203</b>	<b>17,683,264</b>
<b>Percentage of Net Debt to Total Assets.</b>	<b>88.0</b>	<b>83.0</b>	<b>80.0</b>

## BUILDING PERMITS.

**Building Permits.**—Table 31, from the Labour Gazette of February, 1917, shows the value of the building permits issued by 35 cities for each of the years 1915 and 1916. For the year 1916 the total value of the building permits in the table was \$39,740,592, as compared with \$33,566,749 in 1915, a net increase of \$6,173,843.

31.—Values of Building Permits taken out in 35 Cities, in 1915 and 1916. [From the Labour Gazette of February, 1917.]

City.	1915.	1916.	Increase or Decrease.
Nova Scotia—	\$	\$	\$
Halifax.....	1,063,985	1,220,329	+ 156,344
Sydney.....	198,102	128,105	— 69,997
New Brunswick—			
Moncton.....	518,064	211,630	— 306,434
St. John.....	346,275	464,350	+ 118,075
Quebec—			
Maisonneuve.....	776,800	194,340	— 582,460
Montreal.....	7,486,221	5,333,204	— 2,153,017
Quebec.....	2,576,342	2,912,157	+ 335,815
Sherbrooke.....	354,876	368,830	+ 13,954
Three Rivers.....	484,205	537,345	+ 53,140
Westmount.....	589,405	545,754	— 43,651
Ontario—			
Brantford.....	235,606	282,677	+ 47,071
Fort William.....	638,930	414,025	— 224,905
Guelph.....	219,672	155,222	— 64,450
Hamilton.....	1,522,348	2,410,131	+ 887,783
Kingston.....	244,088	184,321	— 59,767
Kitchener.....	334,404	324,838	— 9,566
London.....	1,207,630	926,125	— 281,505
Ottawa.....	1,605,160	1,530,400	— 74,760
Peterborough.....	97,610	128,046	+ 30,430
Port Arthur.....	83,625	1,565,095	+ 1,481,470
Stratford.....	209,800	190,619	— 19,181
St. Catharines.....	445,981	596,715	+ 150,734
St. Thomas.....	134,215	145,685	+ 11,470
Toronto.....	6,651,889	9,882,477	+ 3,230,588
Windsor.....	722,870	1,508,330	+ 785,460
Manitoba—			
Brandon.....	36,155	244,873	+ 208,718
Winnipeg.....	1,826,300	2,507,300	+ 681,000
Saskatchewan—			
Moosejaw.....	90,722	318,945	+ 228,223
Regina.....	464,065	222,075	— 241,990
Saskatoon.....	20,200	146,150	+ 125,950

## FINANCE.

31.—Values of Building Permits taken out in 35 Cities, in 1915 and 1916. [From the Labour Gazette of February, 1917.]-concluded.

City.	1915.	1916.	Increase of Decrease.
	\$	\$	\$
Alberta—			
Calgary.....	150,550	663,500	+ 512,950
Edmonton.....	309,825	231,540	— 78,285
British Columbia—			
New Westminster.....	85,130	85,307	+ 177
Vancouver.....	1,593,249	2,989,893	+ 1,396,644
Victoria.....	242,450	170,265	— 72,185
Total 35 Cities.....	33,566,749	39,740,592	+ 6,173,843

## BANKING.

The total assets of the chartered banks at December 31, 1916, were \$1,948,044,256, as compared with \$1,737,992,244 in 1915. The total liabilities were \$1,706,948,568, as compared with \$1,499,283,690. Deposits by the public in Canada were \$1,303,215,134 at December 31, 1916 (Table 35), as compared with \$1,144,680,651 in 1915. On March 31, 1916, the total at the credit of depositors in the Post Office and Dominion Government Saving Banks was \$53,528,427, as compared with \$54,001,718 in 1915. Table 32 affords some measure of banking progress in Canada by a comparison of the number of branches at different periods. The number has grown from 123 at Confederation to 3,202 as at December 31, 1916, besides 107 in other countries. Table 33 is a statement of the number of branches of each of the 22 chartered Banks of Canada by provinces, as at December 31, 1916. The total number of branches is 3,309, of which 3,202 are in Canada and 107 are in other countries.

32.—Number of Branches of Banks in Canada, by Provinces, 1868, 1902, 1905, 1915 and 1916.

Provinces.	1868.	1902.	1905.	1915.	1916.
Prince Edward Island.....	—	9	10	17	18
Nova Scotia.....	5	89	101	109	110
New Brunswick.....	4	35	49	79	83
Quebec.....	12	137	196	716	784
Ontario.....	100	349	549	1,164	1,145
Manitoba.....	—	52	95	204	204
Saskatchewan.....	—	—	—	401	416
Alberta.....	—	30	87	258	248
British Columbia.....	2	46	55	208	191
Yukon.....	—	—	3	3	3
Total.....	123	747	1,145	3,159	3,202

## BANKING.

33.— Number of Branches of Chartered Banks, by Provinces, as at December 31st, 1915.

Chartered Banks.	P. E. Island.	Nova Scotia.	New Brun- swick.	Quebec.	Ontario.	Man- itoba.	Sask- atchewan.	Alberta.	British Columbia.	Yukon.	Other Countries.	Total.
Bank of Montreal.....	1	13	10	35	60	7	10	9	23	—	9	182
Quebec Bank.....	—	—	1	25	9	1	12	3	2	—	—	53
Bank of Nova Scotia.....	7	30	33	10	64	2	5	4	3	—	32	190
Bank of British North America.....	—	1	5	9	21	9	24	4	17	1	4	95
Bank of Toronto.....	—	—	—	9	63	8	20	7	4	—	—	116
Molson Bank.....	—	—	—	38	50	2	—	4	3	—	—	97
Banque Nationale.....	—	—	—	218	3	—	—	—	—	—	1	222
Merchants' Bank of Canada.....	—	1	1	30	85	15	22	40	7	—	1	202
Banque Provinciale du Canada.....	—	—	9	115	19	—	—	—	—	—	—	143
Union Bank of Canada.....	—	1	1	9	90	46	93	52	10	—	2	304
Canadian Bank of Commerce.....	5	14	4	81	89	23	61	49	42	2	—	376
Royal Bank of Canada.....	5	50	13	31	119	4	24	28	39	—	52	371
Dominion Bank.....	—	—	—	4	62	10	4	4	2	—	—	86
Bank of Hamilton.....	—	—	—	—	53	25	22	10	8	—	—	123
Standard Bank of Canada.....	—	—	—	1	100	2	9	12	1	—	—	125
La Banque d'Hochelega.....	—	—	—	150	16	6	3	4	—	—	—	179
Bank of Ottawa.....	—	—	—	13	61	7	9	1	1	—	—	92
Imperial Bank of Canada.....	—	—	—	2	76	4	15	12	14	—	—	123
Home Bank of Canada.....	—	—	—	3	23	6	7	1	1	—	—	46
Northern Crown Bank.....	—	—	—	—	25	23	53	4	9	—	—	114
Sterling Bank of Canada.....	—	—	—	1	42	4	2	—	—	—	—	49
Weyburn Security Bank.....	—	—	—	—	—	—	21	—	—	—	—	21
<b>Total</b> .....	<b>18</b>	<b>110</b>	<b>83</b>	<b>784</b>	<b>1,145</b>	<b>204</b>	<b>416</b>	<b>248</b>	<b>191</b>	<b>3</b>	<b>107</b>	<b>3,369</b>



## FINANCE.

34.—Assets of Chartered Banks of Canada, December 31, 1916.

Chartered Banks.	Deposit in the Central Gold Re- serves.	Specie.	Dominion Notes.	Call and short loans in Canada.	Current loans in Can- ada <sup>2</sup> .	Other Assets.	Total Assets.
Bank of Montreal.....	\$ 8,000,000	\$ 16,863,009	\$ 25,059,126	\$ —	\$ 99,485,114	\$ 209,441,612	\$ 358,868,861
Quebec Bank.....	400,000	66,368	526,383	4,998,609	6,432,049	8,718,768	21,162,177
Bank of Nova Scotia.....	2,000,000	7,187,031	10,339,227	4,519,453	42,888,033	49,687,981	116,621,727
Bank of British North America.....	1,000,000	1,573,960	3,303,112	3,161,405	23,424,499	36,392,750	68,855,726
Bank of Toronto.....	1,300,000	998,143	6,669,006	3,185,198	42,196,688	17,678,748	71,968,283
Molson's Bank.....	1,000,000	544,543	3,693,277	4,832,843	33,181,237	16,876,653	60,128,553
Banque Nationale.....	1,200,000	209,847	1,716,133	2,531,521	18,862,814	8,262,487	32,782,802
Merchants Bank of Canada.....	3,500,000	3,674,067	6,369,420	6,476,772	54,517,972	33,472,379	108,010,610
Banque Provinciale du Canada.....	—	68,658	1,244,305	2,678,874	6,581,450	7,841,177	18,414,464
Union Bank of Canada.....	3,700,000	1,227,366	5,689,397	2,829,947	54,067,900	40,261,163	107,775,773
Canadian Bank of Commerce.....	3,000,000	18,165,832	14,579,634	15,062,215	136,890,509	92,491,512	282,519,702
Royal Bank of Canada.....	7,500,000	12,996,813	13,953,366	11,051,245	89,275,200	116,771,690	251,548,374
Dominion Bank.....	1,500,000	1,915,648	9,220,183	4,325,652	48,976,389	26,928,819	92,866,692
Bank of Hamilton.....	1,400,000	849,297	3,567,884	3,407,443	31,956,669	14,265,033	55,446,326
Standard Bank of Canada.....	2,200,000	1,263,213	2,942,759	3,518,711	36,392,803	12,890,013	59,207,499
Banque d'Hochebaga.....	700,000	371,636	2,196,902	2,191,876	24,206,675	12,721,960	42,389,049
Bank of Ottawa.....	900,000	1,270,485	2,332,422	2,242,716	25,132,811	24,380,789	56,249,223
Imperial Bank of Canada.....	—	1,603,085	7,428,877	4,063,454	41,856,242	70,222,583	85,174,041
Home Bank of Canada.....	500,000	118,946	2,190,628	727,213	12,739,962	4,753,604	21,030,353
Northern Crown Bank.....	1,900,000	197,925	593,484	504,890	8,205,274	10,425,466	21,827,039
Sterling Bank of Canada.....	—	51,252	665,979	229,443	6,024,208	5,264,939	12,235,821
Weyburn Security Bank.....	—	15,045	168,737	—	1,130,796	1,646,583	2,961,161
<b>Total</b> .....	<b>43,700,000<sup>1</sup></b>	<b>71,172,169</b>	<b>124,750,241</b>	<b>82,569,983</b>	<b>844,435,354</b>	<b>781,416,509</b>	<b>1,948,044,256</b>

<sup>1</sup>Of this deposit \$11,900,000 is in gold coin; the balance is in Dominion notes.<sup>2</sup>Includes loans to Cities, Towns, Municipalities and School Districts.

## BANKING.

35.—Liabilities of Chartered Banks of Canada, December 31, 1916.

Chartered Banks.	Capital paid up.	Rest or reserve fund.	Notes in circulation.	Deposits by the public in Canada.	Other liabilities.	Total liabilities <sup>1</sup> .	Rate p.c. of last dividend.
	\$	\$	\$	\$	\$	\$	
Bank of Montreal.....	16,000,000	16,000,000	22,279,238	232,556,367	69,214,921	323,850,526	10
Quebec Bank.....	2,735,000	1,000,000	2,615,478	13,553,302	1,153,145	17,321,925	7
Bank of Nova Scotia.....	6,500,000	12,000,000	7,945,681	68,013,458	20,928,534	97,537,073	14
Bank of British North America.....	4,806,000	3,017,333	5,635,588	41,503,895	12,182,546	59,382,029	6
Bank of Toronto.....	5,000,000	6,000,000	5,399,979	53,426,193	1,269,606	60,005,778	11
Molson's Bank.....	4,000,000	4,800,000	5,199,908	43,989,411	1,674,418	50,863,737	11
Banque Nationale.....	2,000,000	1,900,000	3,376,816	22,851,629	2,300,081	28,528,526	8
Merchants Bank of Canada.....	7,000,000	7,000,000	9,216,086	77,254,518	6,638,882	93,109,466	10
Banque Provinciale du Canada.....	1,000,000	700,000	1,162,318	13,602,967	1,906,658	16,671,943	7
Union Bank of Canada.....	5,000,000	3,400,000	7,917,397	79,785,560	11,240,080	98,943,017	8
Canadian Bank of Commerce.....	15,000,000	13,500,000	19,527,257	187,647,301	45,869,504	253,044,062	10
Royal Bank of Canada.....	12,000,000	12,560,000	18,981,157	145,639,151	61,107,377	225,787,685	12
Dominion Bank.....	6,000,000	7,000,000	7,118,232	69,624,656	2,579,422	79,322,310	12
Bank of Hamilton.....	3,000,000	3,300,000	3,863,531	43,154,598	1,858,901	48,877,030	12
Standard Bank of Canada.....	3,310,410	4,310,410	5,388,488	44,576,606	843,212	50,808,306	13
Banque d'Hochelaga.....	4,000,000	3,700,000	4,619,302	28,824,083	995,004	34,438,889	9
Bank of Ottawa.....	4,000,000	4,750,000	4,732,145	41,256,513	1,421,407	47,410,065	12
Imperial Bank of Canada.....	7,000,000	7,000,000	7,052,784	59,047,960	3,519,146	69,619,890	12
Home Bank of Canada.....	1,946,639	300,000	2,325,845	10,028,224	6,368,894	18,722,963	5
Northern Crown Bank.....	1,429,172	715,600	2,931,725	15,559,251	1,010,332	19,501,308	6
Sterling Bank of Canada.....	1,210,744	300,000	1,155,210	8,717,410	755,969	10,628,589	6
Weyburn Security Bank.....	347,710	130,000	281,222	2,092,081	110,148	2,483,451	5
Total.....	113,346,341	113,383,343	148,785,287	1,303,215,134	254,948,147	1,706,948,568	—

<sup>1</sup>Exclusive of capital paid up and rest or reserve fund.

## FINANCE.

## 36.—General Statement of Chartered Banks, 1868-1916.

Calendar Year.	Capital paid up.	Notes in circulation.	Total on deposit <sup>1</sup> .	Discounts to the people.	Liabilities <sup>2</sup> .	Assets.
	\$	\$	\$	\$	\$	\$
1868...	30,507,447	9,350,646	33,653,594	52,299,050	45,144,854	79,860,976
1869...	30,790,137	9,539,511	40,028,090	56,433,953	50,940,226	86,283,693
1870...	33,031,249	15,149,031	48,763,205	66,276,961	65,685,870	103,197,103
1871...	37,095,340	20,914,637	56,287,391	84,799,841	80,250,974	125,273,631
1872...	45,190,085	25,296,454	61,481,452	106,744,665	90,864,688	148,862,445
1873...	54,690,561	27,165,878	65,426,042	119,274,317	98,982,668	166,056,595
1874...	60,388,340	27,904,963	77,113,754	131,680,111	116,412,392	187,921,031
1875...	64,619,513	23,035,639	74,642,446	136,029,307	104,609,356	186,255,330
1876...	66,804,398	21,245,935	72,852,686	127,621,577	99,614,014	183,499,801
1877...	65,206,009	20,704,338	74,166,287	125,681,658	99,810,731	181,019,194
1878...	63,682,863	20,475,586	70,856,253	119,682,659	95,538,831	175,450,274
1879...	62,737,276	19,486,103	73,151,425	113,485,108	96,760,113	173,548,490
1880...	60,052,117	22,529,623	85,303,814	102,166,115	111,838,941	184,276,190
1881...	59,534,977	28,516,692	94,346,481	116,953,497	127,176,249	200,613,879
1882...	59,799,644	33,582,080	110,133,124	140,077,194	149,777,214	227,426,835
1883...	61,390,118	33,283,302	107,648,383	143,944,957	145,938,095	228,084,650
1884...	61,597,021	30,449,410	102,398,228	130,490,053	137,493,917	219,998,642
1885...	61,711,566	30,720,762	104,014,660	126,827,792	138,762,695	219,147,080
1886...	61,662,093	31,030,499	111,449,365	132,833,313	146,954,260	228,061,872
1887...	60,860,561	32,478,118	112,656,985	139,753,755	149,704,402	230,393,072
1888...	60,345,035	32,205,259	125,136,473	141,002,373	163,990,797	243,504,164
1889...	60,229,752	32,207,144	134,650,732	149,958,980	173,029,602	253,789,803
1890...	59,974,902	32,834,511	135,548,704	153,301,335	173,207,587	254,546,329
1891...	60,700,697	33,061,042	148,396,968	171,082,677	187,332,325	269,307,032
1892...	61,626,311	33,788,679	166,668,471	193,455,883	208,062,169	291,635,251
1893...	62,009,346	33,811,925	174,776,722	206,623,042	217,195,975	302,696,715
1894...	62,063,371	31,166,003	181,743,890	204,124,939	221,066,724	307,520,020
1895...	61,800,700	30,807,041	190,916,939	203,730,800	229,794,322	316,536,527
1896...	62,043,173	31,456,297	193,616,049	213,211,996	232,338,086	320,937,643
1897...	62,027,703	34,350,118	211,788,096	212,014,635	252,660,708	341,163,505
1898...	62,571,920	37,873,934	236,161,062	223,806,320	281,076,656	370,583,991
1899...	63,726,399	41,513,139	266,504,528	251,467,076	318,624,033	412,504,768
1900...	65,154,594	46,574,780	305,140,242	279,279,761	356,394,095	459,715,065
1901...	67,035,615	50,601,205	349,573,327 <sup>3</sup>	388,299,888	420,003,743	531,829,324
1902...	69,869,670	55,412,598	390,370,493 <sup>3</sup>	430,662,670	466,963,829	585,761,109
1903...	76,453,125	60,244,072	424,167,140 <sup>3</sup>	472,019,689	507,527,550	641,543,226
1904...	79,234,191	61,769,888	470,265,744 <sup>3</sup>	509,011,993	554,014,076	695,417,756
1905...	82,655,828	64,025,643	531,243,476 <sup>3</sup>	559,814,918	618,678,633	767,490,183
1906...	91,035,604	70,638,870	605,968,513 <sup>3</sup>	655,869,879	713,790,553	878,512,076
1907...	95,953,732	75,784,482	654,839,711 <sup>3</sup>	709,975,274	769,026,924	945,685,708
1908...	96,147,526	71,401,697	658,367,015 <sup>3</sup>	670,170,833	762,077,184	941,290,619
1909...	97,329,333	73,943,119	783,298,880 <sup>3</sup>	762,195,546	882,598,547	1,067,007,534
1910...	98,787,929	82,120,303	909,964,839 <sup>3</sup>	870,100,890	1,019,177,601	1,211,452,351
1911...	103,009,256	89,982,223	980,433,788 <sup>3</sup>	926,909,616	1,097,661,393	1,303,131,206
1912...	112,730,943	100,146,541	1,102,910,383 <sup>3</sup>	1,061,845,991	1,240,124,354	1,470,065,478
1913...	116,297,729	105,265,356	1,126,871,523 <sup>3</sup>	1,111,993,263	1,287,372,534	1,530,093,671
1914...	114,759,807	101,600,185	1,144,210,363 <sup>3</sup>	1,101,880,924	1,309,944,006	1,555,676,395
1915...	113,982,741	105,137,092	1,198,340,315 <sup>3</sup>	1,066,252,854	1,353,629,123	1,596,424,643
1916...	113,175,353	126,691,913	1,418,035,429 <sup>3</sup>	1,135,866,531	1,596,905,337	1,839,286,709

NOTE.—The statistics in this table are averages computed from the monthly returns in each year. <sup>1</sup>Including deposits of federal and provincial governments. <sup>2</sup>Excluding capital and rest or reserve fund. <sup>3</sup>Including amounts deposited elsewhere than in Canada, not previously included in deposits.

## BANKING.

37.—Deposits in Chartered Banks in Canada and elsewhere, 1901-1916.<sup>1</sup>

Calendar Year.	Deposits by the public in Canada.		Deposits elsewhere than in Canada.	Balances due to Dominion and Provincial Governments.	Total deposits.
	payable on demand.	payable after notice or on a fixed day.			
	\$	\$	\$	\$	\$
1901.	95,169,631	221,624,664	26,560,444	6,218,588	349,573,327
1902.	104,424,203	244,062,545	34,529,739	7,354,006	390,370,493
1903.	112,461,757	269,911,501	34,931,701	6,862,181	424,167,140
1904.	117,962,023	307,007,192	36,388,330	8,908,199	470,265,744
1905.	138,116,550	338,411,275	44,325,531	10,390,120	531,243,476
1906.	165,144,569	381,778,705	46,030,241	13,014,998	605,968,513
1907.	166,342,144	413,014,657	58,828,181	16,654,729	654,839,711
1908.	169,721,755	406,103,063	65,793,319	16,748,878	658,367,015
1909.	225,414,828	464,635,263	70,788,822	22,459,967	783,298,880
1910.	260,232,399	532,087,627	78,445,210	39,199,603	909,964,839
1911.	304,801,755	568,976,209	72,823,733	33,832,091	980,433,788
1912.	359,431,895	625,705,765	81,137,710	36,635,013	1,102,910,383
1913.	367,214,143	626,199,470	97,528,021	35,929,889	1,126,871,523
1914.	346,069,908	656,760,687	101,244,738	40,135,030	1,144,210,363
1915.	358,444,252	690,904,274	110,671,820	38,319,969	1,198,340,315
1916.	428,717,781	780,842,383	155,603,314	52,871,951	1,418,035,429

38.—Discounts of Chartered Banks in Canada and elsewhere, 1901-1916.<sup>1</sup>

Cal- en- dar Yr.	Call and short loans on stocks and bonds in Canada.	Call and short loans elsewhere than in Canada.	Current loans in Canada <sup>2</sup> .	Current loans elsewhere than in Canada.	Loans to governments.	Overdue debts.	Total discounts of banks.
	\$	\$	\$	\$	\$	\$	\$
1901	35,304,846	40,020,238	283,387,175	24,678,377	2,931,398	1,977,854	388,299,888
1902	45,206,530	46,162,659	303,128,541	30,288,653	3,796,593	2,079,694	430,662,670
1903	13,583,788	38,025,662	360,573,639	25,586,802	2,211,379	2,038,419	472,019,689
1904	36,999,790	41,212,007	407,475,439	18,665,002	2,465,495	2,194,260	509,011,993
1905	42,659,144	51,452,955	436,659,384	25,097,824	1,960,465	1,985,146	559,814,918
1906	56,597,649	59,363,639	500,770,572	35,777,625	1,353,258	2,007,136	655,869,879
1907	49,192,291	52,907,513	574,784,939	27,340,135	2,183,799	3,566,597	709,975,274
1908	42,060,715	60,764,075	529,320,134	24,383,503	5,542,149	8,100,257	670,170,833
1909	53,266,984	119,728,262	544,380,947	34,454,995	2,913,083	7,451,274	762,195,546
1910	61,623,002	112,777,530	646,910,799	39,912,108	2,027,344	6,850,107	870,100,890
1911	63,889,906	91,097,714	728,462,991	35,742,140	1,844,837	5,872,028	926,909,616
1912	71,221,133	105,718,070	842,051,088	36,893,506	2,167,778	3,792,416	1,061,843,991
1913	70,096,169	98,602,615	891,489,259	44,578,835	2,851,877	4,374,508	1,111,993,263
1914	69,646,196	112,438,696	858,565,153	48,570,152	7,063,242	5,597,485	1,101,880,924
1915	72,695,421	118,896,692	809,727,206	44,998,570	13,187,508	6,747,457	1,066,252,854
1916	85,386,829	164,786,760	806,332,074	64,857,403	8,014,092	6,489,373	1,135,866,531

<sup>1</sup>Averages computed from monthly returns in each year.<sup>2</sup>Includes loans to Cities, Towns, Municipalities and School Districts.



## FINANCE.

39.—Assets of Chartered Banks for the Calendar Years 1913-1916<sup>1</sup>.

Schedule.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
Balances due from agencies of the banks or from other banks or agencies in the United Kingdom.....	13,329,642	12,230,533	20,824,559	24,025,192
Balances due from agencies of chartered banks or agencies elsewhere than in Canada and the United Kingdom...	28,154,996	36,932,958	43,781,939	72,923,228
Bank premises.....	40,235,778	45,007,862	47,704,275	49,358,665
Call and short loans on stocks and bonds in Canada.....	70,096,169	69,646,196	72,695,421	85,386,829
Call and short loans elsewhere than in Canada.....	98,602,615	112,438,696	118,896,692	164,786,760
Current loans in Canada <sup>2</sup> ....	891,489,259	858,565,153	809,727,206	806,332,074
Current loans elsewhere than in Canada.....	44,578,835	48,570,152	44,998,570	64,857,403
Deposit in central gold reserve	6,605,261	6,070,833	8,325,833	22,316,667
Deposits made with and balances due from other banks in Canada.....	5,648,586	5,686,916	8,156,471	8,059,707
Deposits with Dominion Government for security of note circulation.....	6,536,341	6,693,684	6,756,648	6,811,213
Dominion notes.....	94,146,377	105,842,634	135,440,326	139,416,618
Dominion and provincial government securities.....	9,995,237	11,697,603	12,814,898	29,717,007
Loans to governments.....	2,851,877	7,063,242	13,187,508	8,014,092
Loans to other banks in Canada.....	135,017	136,725	36,290	—
Mortgages on real estate sold by banks.....	2,094,245	1,722,978	1,691,657	1,674,331
Municipal securities in Canada and public securities elsewhere than in Canada.....	23,183,162	22,707,738	31,553,091	117,902,686
Notes of and cheques on other banks.....	64,485,226	58,434,666	55,573,844	76,466,651
Overdue debts.....	4,374,508	5,597,485	6,747,457	6,489,373
Railway and other bonds, debentures and stocks.....	70,713,075	68,636,267	74,020,538	68,386,482
Real estate other than bank premises.....	1,465,181	2,810,452	3,952,950	4,988,544
Specie.....	41,121,246	53,932,490	64,672,695	68,380,346
Other assets.....	10,251,038	15,251,132	14,865,775	12,992,643
<b>Total assets.....</b>	<b>1,550,093,671</b>	<b>1,555,676,395</b>	<b>1,596,424,643</b>	<b>1,839,286,709</b>

<sup>1</sup>The statistics in this table are averages computed from monthly returns in each year.

<sup>2</sup>Includes loans to Cities, Towns, Municipalities and School Districts.

## BANKING.

40.—Liabilities of Chartered Banks for the Calendar Years 1913-1916<sup>1</sup>.

Schedule.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$
Liabilities to shareholders— Capital paid up.....	116,297,729	114,759,807	113,982,741	113,175,353
Rest or reserve fund.....	109,129,393	113,130,626	113,020,310	112,989,541
<b>Total.....</b>	<b>225,427,122</b>	<b>227,890,433</b>	<b>227,003,051</b>	<b>226,164,894</b>
Other liabilities— Balances due to agencies of Canadian banks, or to other banks or agencies in the United Kingdom...	12,030,969	14,117,852	8,651,977	3,693,293
Balances due to agencies of Canadian banks, or to other banks or agencies elsewhere than in Canada and the United Kingdom...	8,791,532	9,494,379	11,662,234	16,074,466
Balance due to Dominion Government after deduct- ing advances for credits, pay lists, etc.....	7,873,277	11,158,018	14,022,387	30,333,980
Balance due to provincial governments.....	28,056,612	28,977,012	24,297,582	22,537,970
Deposits by the public payable on demand in Canada.....	357,214,143	346,069,908	358,444,252	428,717,781
Deposits by the public pay- able after notice or on a fixed day in Canada.....	626,199,470	656,760,687	690,904,274	780,842,383
Deposits made by and bal- ances due to other banks in Canada.....	6,478,200	7,726,783	10,434,999	10,418,946
Deposits elsewhere than in Canada.....	97,528,021	101,244,728	110,671,820	155,603,314
Notes in circulation.....	105,265,536	101,600,185	105,137,092	126,601,913
Liabilities not included un- der foregoing heads.....	27,934,974	29,793,844	19,371,506	21,931,291
<b>Total.....</b>	<b>1,287,372,534</b>	<b>1,309,944,006</b>	<b>1,353,629,123</b>	<b>1,596,965,337</b>
<b>Total liabilities to sharehold- ers and other liabilities...</b>	<b>1,512,799,656</b>	<b>1,537,834,439</b>	<b>1,580,632,174</b>	<b>1,823,070,231</b>
Excess of assets over all li- abilities—undivided profits not included.....	17,294,015	17,841,956	15,792,469	16,216,478

<sup>1</sup>The statistics in this table are averages computed from monthly returns in each year.

## FINANCE.

41.—Average Monthly Circulation of Dominion Notes by Denominations, 1891-1916<sup>1</sup>.

Calendar Year	DENOMINATIONS.							Total average.
	\$5,000.	\$500 and \$1,000.	\$50 and \$100.	\$4, \$5, \$10 and \$20.	\$5.	\$1 and \$2.	Fractionals.	
	\$	\$	\$	\$	\$	\$	\$	\$
1891.	—	9,050,000	280,860	449,644	—	6,412,825	181,130	16,374,459
1892.	—	9,895,000	299,988	473,290	—	6,551,283	187,880	17,407,441
1893.	—	11,280,125	250,820	451,061	—	6,788,000	196,000	18,966,006
1894.	—	13,297,160	227,070	403,334	—	6,615,048	206,550	20,749,168
1895.	—	13,834,666	232,300	369,439	—	6,743,555	217,802	21,397,762
1896.	2,285,000 <sup>2</sup>	12,135,875	219,600	348,827	—	6,980,012	227,390	22,196,704
1897.	4,891,250	10,309,208	241,821	322,751	—	7,237,520	236,156	23,238,706
1898.	6,410,417	8,137,833	216,883	364,992	—	7,851,532	248,122	23,229,779
1899.	7,474,583	8,130,083	211,196	434,286	—	8,524,327	267,175	25,041,650
1900.	8,480,000	7,854,500	218,921	395,573	—	9,315,354	286,117	26,550,465
1901.	8,862,083	9,363,375	232,142	524,480	—	9,757,778	312,911	29,052,769
1902.	11,358,750	9,010,667	229,858	639,937	—	10,463,359	338,842	32,041,413
1903.	18,004,167	7,649,000	189,121	558,987	—	11,409,251	352,934	38,163,460
1904.	23,460,000	6,941,167	150,758	456,313	—	11,995,396	362,203	43,365,837
1905.	28,300,417	6,785,792	128,554	493,264	—	12,630,271	376,359	48,714,657
1906.	30,019,583	6,919,583	122,883	392,779	—	13,997,323	407,381	51,859,532
1907.	36,163,667	6,763,625	116,921	334,589	—	15,188,627	450,011	59,017,440
1908.	45,739,583	7,143,125	105,154	214,831	—	14,910,365	489,886	68,602,944
1909.	56,764,583	7,693,208	98,846	153,019	—	15,542,364	540,391	80,792,411
1910.	63,366,250	8,069,500	94,708	254,635	—	17,235,627	607,849	89,628,569
1911.	69,349,167	8,984,958	89,800	1,666,906	—	19,166,092	664,431	99,921,354
1912.	77,859,167	9,436,512	48,396	1,065,798	9,369,522 <sup>3</sup>	20,798,557	728,225	114,621,445
1913.	78,227,083	9,782,083	22,133	141,143	6,152,655	22,009,108	764,372	117,098,577
1914.	89,766,250	9,674,792	17,504	73,170	1,078,939	22,020,852	791,102	126,422,609
1915.	123,407,083	8,402,917	14,304	60,497	3,523,189	21,482,296	824,867	157,715,153
1916.	140,892,500	8,053,125	12,837	53,860	3,233,989	23,601,722	967,973	176,816,006

<sup>1</sup>The statistics in this table are averages computed from the monthly returns of each year. <sup>2</sup>Three months only. <sup>3</sup>Six months only. First issue of Dominion \$5 notes, July 1, 1912.

42.—Amount of Exchanges of the Clearing Houses of Chartered Banks, 1912-1916<sup>1</sup>.

Cities.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Calgary.....	275,492,303	248,715,948	201,669,872	169,758,599	233,097,671
Edmonton.....	220,727,617	213,053,418	157,308,686	105,824,554	114,745,915
Halifax.....	100,466,678	105,347,636	100,280,108	104,414,597	125,997,881
Hamilton.....	158,127,435	177,946,610	148,886,812	151,420,271	200,811,087
London.....	84,526,961	90,720,752	86,024,238	89,774,787	100,090,560
Montreal.....	2,845,470,000	2,879,118,000	2,631,350,000	2,628,122,428	3,715,125,744
Ottawa.....	244,123,453	207,667,008	209,662,599	211,636,519	261,449,599
Quebec.....	158,760,185	165,674,745	165,873,241	158,325,906	192,163,703
St. John, N.B..	88,969,218	82,447,747	78,259,921	77,533,868	90,946,795
Toronto.....	2,170,230,376	2,181,281,507	2,012,953,966	1,885,956,257	2,571,535,613
Vancouver, B.C.	645,118,887	606,899,710	420,951,718	281,575,949	321,585,736
Victoria, B.C..	183,544,238	176,977,074	121,663,271	76,677,926	81,271,154
Winnipeg.....	1,537,817,524	1,634,977,237	1,370,960,806	1,520,683,124	2,061,795,257
Regina.....	115,727,648	132,087,457	98,205,541	87,122,611	124,349,589
Saskatoon.....	115,898,467	96,034,723	59,314,947	52,146,841	68,316,154
Moosejaw.....	65,136,326	61,370,949	45,846,371	42,634,319	52,971,442
<b>Total.....</b>	<b>9,010,137,316</b>	<b>9,060,320,521</b>	<b>7,909,212,098</b>	<b>7,653,618,554</b>	<b>10,315,853,900</b>

<sup>1</sup>From Bradstreet's.

## BANKING.

## 43.—Rest or Reserve Fund held by Chartered Banks by months, 1907-1916.

Months.	1907.	1908.	1909.	1910.	1911.
	\$	\$	\$	\$	\$
January.....	69,396,431	71,071,984	74,585,185	78,449,573	84,356,108
February.....	69,130,046	71,215,644	74,489,942	78,521,946	84,766,633
March.....	69,716,655	71,302,408	75,328,293	78,569,586	84,891,710
April.....	69,988,077	71,530,096	75,607,676	78,846,070	85,213,740
May.....	69,412,774	71,558,683	75,755,488	79,251,915	86,690,829
June.....	69,556,585	71,653,898	75,824,738	79,370,321	86,943,135
July.....	69,637,439	71,657,694	75,847,368	79,429,978	88,352,064
August.....	69,748,293	71,661,938	75,888,103	79,823,679	89,324,728
September.....	69,798,322	71,700,983	75,937,662	80,089,471	90,181,949
October.....	69,862,098	72,707,614	76,172,223	80,157,791	93,418,824
November.....	70,534,757	74,006,611	77,368,333	83,164,948	95,699,232
December.....	70,901,232	74,427,630	77,847,333	83,965,869	96,868,124
Monthly averages...	69,806,892	72,041,265	75,887,695	79,970,346	88,892,256
	1912.	1913.	1914.	1915.	1916.
January.....	98,101,595	107,200,548	112,401,141	113,227,654	112,457,333
February.....	98,721,502	107,514,405	112,679,074	113,227,654	112,457,333
March.....	99,234,481	107,903,491	112,706,350	113,227,654	113,022,933
April.....	100,638,290	108,414,337	113,287,200	113,327,654	113,122,933
May.....	100,878,848	108,681,230	113,346,113	113,060,988	113,022,933
June.....	101,031,186	108,732,561	113,368,898	113,060,988	113,022,933
July.....	101,735,482	108,959,833	113,381,526	113,060,988	113,022,933
August.....	102,751,441	109,194,211	113,382,911	113,060,988	113,022,933
September.....	104,301,411	109,358,445	113,385,761	113,061,008	113,022,933
October.....	104,639,396	109,624,776	113,392,374	112,752,333	113,022,933
November.....	106,212,072	111,850,862	113,165,307	112,718,473	113,293,018
December.....	106,840,007	112,118,016	113,070,859	112,457,333	113,383,343
Monthly averages...	102,090,476	109,129,393	113,130,626	113,020,310	112,989,541

## 44.—Average Circulation of Bank Notes and Government Notes by five-year and annual periods, 1874-1916.

Five-year periods.	Yearly average of bank notes.	Yearly average of government notes, \$20 and under.	Years.	Yearly average of bank notes.	Yearly average of government notes, \$20 and under.
	\$	\$		\$	\$
1874-78.....	22,673,300	3,712,894	1909.....	73,943,119	16,235,774
1879-83.....	27,479,560	4,928,216	1910.....	82,120,303	18,098,111
1884-88.....	31,377,000	6,358,407	1911.....	89,982,223	21,497,429
1889-93.....	33,140,600	7,097,000	1912.....	100,146,541	31,962,102
1894-98.....	33,130,678	7,674,610	1913.....	105,265,336	29,067,278
1899-03.....	50,869,159	10,716,262	1914.....	104,600,185	26,964,063
1904-08.....	68,724,116	14,539,920	1915.....	105,137,092	25,890,849
			1916.....	126,691,913	27,857,543



## FINANCE.

45.—Total amount of Issue and Redemption of Dominion Notes from July 1, 1878, to March 31, 1916.

Fiscal Year.	Issue.	Redemption.	Increase.	Decrease.
	\$	\$	\$	\$
1878-79.....	1,650,412	1,295,598	354,814	—
1879-80.....	3,838,195	1,062,746	2,775,449	—
1880-81.....	2,104,213	1,158,690	945,523	—
1881-82.....	2,645,819	1,360,764	1,285,055	—
1882-83.....	1,652,159	1,443,453	208,706	—
1883-84.....	1,555,110	2,215,880	—	660,770
1884-85.....	3,523,167	3,444,412	78,755	—
1885-86.....	4,622,088	3,755,864	866,224	—
1886-87.....	2,452,500	3,308,352	—	855,852
1887-88.....	4,263,667	3,071,185	1,192,482	—
1888-89.....	3,017,958	3,844,995	—	827,037
1889-90.....	3,413,793	3,486,180	—	72,387
1890-91.....	3,793,911	2,975,487	818,424	—
1891-92.....	5,006,593	3,900,212	1,106,381	—
1892-93.....	4,172,573	3,006,778	1,165,795	—
1893-94.....	4,863,808	3,250,582	1,613,226	—
1894-95.....	3,895,994	4,437,480	—	541,486
1895-96.....	3,906,764	3,655,997	250,767	—
1896-97.....	5,812,806	3,866,908	1,945,898	—
1897-98.....	8,078,500	8,218,403	—	139,903
1898-99.....	3,747,817	1,689,544	2,058,273	—
1899-00.....	5,454,682	3,596,225	1,858,457	—
1900-01.....	6,574,500	4,099,253	2,475,247	—
1901-02.....	11,540,618	6,658,740	4,881,878	—
1902-03.....	17,861,500	4,732,290	13,129,210	—
1903-04.....	11,421,765	8,853,180	2,568,585	—
1904-05.....	23,682,541	17,923,103	5,759,438	—
1905-06.....	17,026,923	14,419,717	2,607,206	—
1906-07 (9 mos.).....	16,132,514	11,279,344	4,853,170	—
1907-08.....	21,593,319	15,931,925	5,661,394	—
1908-09.....	32,122,141	13,227,052	18,895,089	—
1909-10.....	13,202,788	5,419,800	7,782,988	—
1910-11.....	21,315,100	18,454,898	2,860,202	—
1911-12.....	40,213,041	16,763,678	23,449,363	—
1912-13.....	32,306,796	33,648,544	—	1,341,748
1913-14.....	40,644,449	34,950,616	5,693,833	—
1914-15.....	67,503,725	28,243,245	39,260,480	—
1915-16.....	46,804,749	25,917,736	20,887,013	—
<b>Total.....</b>	<b>503,418,998</b>	<b>328,568,856</b>	<b>179,289,325</b>	<b>4,439,183</b>

## 46.—Business of the Post Office Savings Banks, 1868-1916.

Fiscal Year	Savings banks at end of fiscal year.	Deposits received in year.	Transferred from gov't s. b. to post office s. b.	Interest on deposits in year.	Total cash and interest.	Amount withdrawn in year.	Amount at credit of open accounts at end of year.	Open accounts at end of year.
	No.	\$	\$	\$	\$	\$	\$	No.
1868	81	212,507	-	939	213,446	8,857	204,589	2,102
1869	213	927,885	-	21,094	948,979	296,754	856,814	7,212
1870	226	1,347,901	-	48,689	1,396,590	664,555	1,588,849	12,178
1871	230	1,917,576	-	84,274	2,001,850	1,093,439	2,497,260	17,153
1872	235	2,261,631	-	116,174	2,377,805	1,778,565	3,096,500	21,059
1873	239	2,306,918	-	126,933	2,433,851	2,323,299	3,207,052	23,526
1874	266	2,340,284	-	126,273	2,466,557	2,468,644	3,204,965	24,968
1875	268	1,942,346	-	120,758	2,063,104	2,341,979	2,926,090	24,294
1876	279	1,726,204	-	110,116	1,836,320	2,021,458	2,740,952	24,415
1877	287	1,521,000	-	104,068	1,625,068	1,726,083	2,639,937	24,074
1878	295	1,724,371	-	103,834	1,828,205	1,713,658	2,754,484	25,535
1879	297	1,973,243	-	110,913	2,084,156	1,733,449	3,105,191	27,445
1880	297	2,720,216	-	136,075	2,856,291	2,015,813	3,945,669	31,365
1881	304	4,175,042	-	184,905	4,359,947	2,097,389	6,208,227	39,605
1882	308	6,435,989	-	291,065	6,727,054	3,461,619	9,473,662	51,463
1883	330	6,826,266	-	407,305	7,233,571	4,730,996	11,976,237	61,059
1884	343	6,441,439	-	477,487	6,918,926	5,649,611	13,245,552	66,682
1885	355	7,098,459	-	539,561	7,638,020	5,793,032	15,090,540	73,322
1886	392	7,645,227	-	607,075	8,252,302	6,183,470	17,159,372	80,870
1887	415	8,272,041	-	692,404	8,964,445	6,626,067	19,497,750	90,159
1888	433	7,722,330	217,385	765,639	8,705,354	7,514,071	20,689,033	101,693
1889	463	7,926,634	1,085,980	841,922	9,854,536	7,532,146	23,011,423	113,123
1890	494	6,599,896	167,502	786,875	7,554,273	8,575,042	21,990,654	112,321
1891	634	6,500,372	389,169	734,431	7,623,972	7,875,978	21,738,648	111,230
1892	642	7,056,002	-	734,591	7,790,593	7,230,839	22,298,402	110,805
1893	673	7,708,838	-	777,483	8,486,321	6,631,579	24,153,194	114,275
1894	699	7,524,286	218,174	835,800	8,578,260	7,473,586	25,257,868	117,020
1895	731	7,488,028	493,889	876,049	8,857,906	7,310,292	26,805,542	120,628
1896	755	8,138,947	449,982	944,525	9,523,454	7,406,066	28,932,930	126,442
1897	779	8,223,000	1,856,474	1,024,512	11,103,986	7,656,087	32,380,829	135,737
1898	814	9,183,693	786,868	982,726	10,953,287	8,853,178	34,480,938	142,289
1899	838	8,310,630	-	1,001,900	9,312,530	9,021,863	34,771,605	142,141
1900	847	10,448,485	141,172	1,049,699	11,639,356	8,903,505	37,507,456	150,987
1901	895	11,091,099	-	1,126,952	12,218,051	9,774,694	39,950,813	157,368
1902	915	11,382,035	415,508	1,188,925	12,986,468	10,617,071	42,320,210	162,761
1903	934	12,060,825	-	1,254,049	13,314,874	11,379,757	44,255,327	167,023
1904	961	11,737,930	-	1,309,567	13,047,507	11,883,128	45,419,706	168,572
1905	989	10,504,430	252,774	1,320,512	12,077,716	12,129,101	45,368,321	165,518
1906	1,011	10,805,458	559,593	1,327,645	12,692,696	12,324,529	45,736,488	164,542
1907 <sup>1</sup>	1,043	8,803,503	1,216,169	1,027,834	11,047,506	9,330,766	47,453,228	167,285
1908	1,084	12,293,274	59,244	1,369,404	13,721,922	13,610,866	47,564,284	165,691
1909	1,102	9,415,569	-	1,342,870	10,758,439	13,132,239	45,190,484	155,895
1910	1,133	8,816,512	-	1,279,011	10,095,523	11,699,650	43,586,357	148,893
1911	1,151	9,957,016	-	1,257,566	11,214,582	11,470,360	43,330,579	147,478
1912	1,172	11,054,877	223,831	1,258,165	12,536,873	12,303,688	43,563,764	147,919
1913	1,212	11,299,964	-	1,255,180	12,555,144	13,389,966	42,728,942	146,034
1914	1,250	11,346,459	140,319	1,218,492	12,705,270	13,842,925	41,591,387	143,320
1915	1,269	10,154,189	-	1,175,537	11,329,726	12,925,606	39,995,406	135,477
1916	1,281	8,539,742	295,100	1,160,083	9,994,925	9,981,913	40,008,418	134,345

<sup>1</sup>Three months only.<sup>2</sup>Nine months.

## FINANCE.

## 47.—Business of the Dominion Government Savings Banks, 1868-1916.

Fiscal Year.	Cash deposits in year.	Interest on deposits in year.	Total cash and interest.	Withdrawals in year.	At credit of depositors June 30.
	\$	\$	\$	\$	\$
1868.....	292,994	66,078	359,072	297,900	1,483,219 <sup>1</sup>
1869.....	323,138	69,528	392,666	281,360	1,594,525
1870.....	462,481	77,128	539,609	311,564	1,822,570
1871.....	556,669	88,256	644,925	295,459	2,072,036
1872.....	1,085,289	100,836	1,186,125	1,142,336	2,151,234 <sup>2</sup>
1873.....	2,442,917	93,862	2,536,809	1,732,873	2,958,170
1874.....	3,207,689	154,491	3,362,180	2,564,996	4,005,295 <sup>3</sup>
1875.....	3,570,289	177,896	3,748,185	3,508,389	4,245,091
1876.....	3,222,672	178,572	3,401,244	3,343,170	4,303,165
1877.....	3,911,573	190,156	4,101,732	3,574,204	4,830,693
1878.....	5,366,358	232,816	5,599,174	4,687,338	5,742,529
1879.....	4,549,290	242,665	4,791,955	4,431,992	6,102,492
1880.....	5,240,195	268,729	5,508,924	4,564,129	7,107,287
1881.....	6,494,640	323,874	6,818,514	4,297,356	9,628,445
1882.....	7,090,434	411,949	7,502,383	4,835,828	12,295,009
1883.....	7,067,390	505,388	7,572,778	5,624,908	14,242,870
1884.....	6,807,632	576,653	7,384,285	5,655,171	15,971,984
1885.....	7,170,480	645,707	7,816,187	5,899,635	17,888,536
1886.....	7,513,069	728,546	8,241,615	6,115,709	20,014,442
1887.....	6,134,911	795,164	6,930,075	5,609,992	21,334,525
1888.....	3,541,144	813,349	4,354,493	5,006,993	20,682,025
1889.....	3,645,188	777,300	4,422,488	5,159,578	19,944,935
1890.....	3,086,936	688,417	3,775,353	4,698,476	19,021,812
1891.....	2,858,535	614,094	3,472,629	4,833,063	17,661,378
1892.....	3,155,344	585,989	3,741,333	4,171,565	17,231,146
1893.....	3,410,093	588,319	3,998,412	3,533,094	17,696,464
1894.....	3,400,456	601,420	4,001,876	3,920,196	17,778,144
1895.....	3,242,278	594,283	3,836,561	3,969,749	17,644,956
1896.....	3,293,379	598,445	3,891,824	3,670,391	17,866,389
1897.....	3,186,581	597,580	3,784,161	5,096,403	16,554,147
1898.....	2,705,030	463,313	3,168,343	4,092,309	16,300,181
1899.....	2,514,398	449,166	2,963,564	3,123,635	15,470,110
1900.....	2,784,581	452,400	3,236,981	3,064,825	15,642,266
1901.....	2,881,477	462,809	3,344,286	2,888,408	16,098,144
1902.....	2,971,583	473,334	3,444,917	3,425,284	16,117,777
1903.....	3,051,808	475,245	3,527,113	3,129,088	16,515,802
1904.....	2,879,793	483,233	3,363,026	3,140,084	16,738,744
1905.....	2,817,267	489,322	3,306,589	3,396,197	16,649,136
1906.....	2,744,818	473,281	3,218,099	3,693,101	16,174,134
1907 (9 mos).....	1,981,286	333,866	2,315,152	3,400,702	15,088,584 <sup>4</sup>
1908.....	2,457,330	436,539	2,893,869	2,965,582	15,016,871 <sup>4</sup>
1909.....	2,074,479	431,120	2,505,599	2,774,034	14,748,436 <sup>4</sup>
1910.....	2,120,201	427,037	2,547,238	2,617,802	14,677,872 <sup>4</sup>
1911.....	2,337,188	428,509	2,765,697	2,679,817	14,763,752 <sup>4</sup>
1912.....	2,616,248	422,862	3,039,110	3,147,298	14,655,564 <sup>4</sup>
1913.....	2,573,775	409,453	2,983,228	3,227,251	14,411,541 <sup>4</sup>
1914.....	2,363,643	408,650	2,772,293	3,207,672	13,976,162 <sup>4</sup>
1915.....	2,277,153	404,525	2,681,678	2,651,682	14,006,312 <sup>1</sup>
1916.....	1,904,392	407,148	2,311,540	2,797,843	13,520,009 <sup>4</sup>

<sup>1</sup>This amount includes \$1,422,047 at credit of depositors June 30, 1867.<sup>2</sup>Includes \$38,418 at credit of New Brunswick account in 1871.<sup>3</sup>Includes \$249,941 at credit of Prince Edward Island account in 1873.<sup>4</sup>March 31.

## BANKING.

48.—Total Business of Post Office and Dominion Government Savings Banks, 1868-1916.

Fiscal Year.	Cash deposits in year.	Interest on total deposits.	Total cash and interest.	Withdrawals in year.	At credit of depositors June 30.
	\$	\$	\$	\$	\$
1868.....	505,501	67,017	572,518	306,757	1,687,808 <sup>1</sup>
1869.....	1,251,023	90,622	1,341,645	578,114	2,451,339
1870.....	1,810,382	125,817	1,936,199	976,119	3,411,419
1871.....	2,474,245	172,530	2,646,775	1,488,897	4,569,297
1872.....	3,346,920	217,010	3,563,930	2,920,911	5,250,734 <sup>2</sup>
1873.....	4,749,835	220,825	4,970,660	4,056,172	6,165,222
1874.....	5,547,973	280,764	5,828,737	5,033,639	7,210,261 <sup>3</sup>
1875.....	5,512,634	298,654	5,811,288	5,850,368	7,171,181
1876.....	4,948,876	288,688	5,237,564	5,364,627	7,044,118
1877.....	5,132,576	294,224	5,426,800	5,300,287	7,470,631
1878.....	7,090,729	336,650	7,427,379	6,400,997	8,497,013
1879.....	6,522,533	353,578	6,876,111	6,165,441	9,267,683
1880.....	7,960,411	404,804	8,365,215	6,519,942	11,052,956
1881.....	10,669,682	508,779	11,178,461	6,394,745	15,836,672
1882.....	13,526,423	703,014	14,229,437	8,297,447	21,768,362
1883.....	13,893,656	912,693	14,806,349	10,355,903	26,219,108
1884.....	13,249,071	1,054,140	14,303,211	11,304,782	29,217,537
1885.....	14,268,939	1,185,267	15,454,206	11,692,667	32,979,076
1886.....	15,158,296	1,335,621	16,493,917	12,299,179	37,173,814
1887.....	14,406,952	1,487,569	15,894,521	12,236,060	40,832,275
1888.....	11,480,859	1,578,988	13,059,847	12,521,064	41,371,058
1889.....	12,637,802	1,619,222	14,277,024	12,691,724	42,956,358
1890.....	9,854,333	1,475,292	11,329,625	13,273,518	41,012,465
1891.....	9,748,076	1,348,525	11,096,601	12,709,040	39,400,026
1892.....	10,211,346	1,320,580	11,531,926	11,402,404	39,529,548
1893.....	11,118,981	1,365,802	12,484,783	10,164,673	41,849,658
1894.....	11,142,916	1,437,220	12,580,136	11,393,782	43,036,012
1895.....	11,224,195	1,470,332	12,694,527	11,280,041	44,450,498
1896.....	11,882,307	1,542,970	13,425,277	11,076,456	46,799,319
1897.....	13,266,055	1,622,092	14,888,147	12,752,490	48,934,976
1898.....	12,675,591	1,446,039	14,121,630	12,945,487	50,111,119
1899.....	10,825,028	1,451,066	12,276,094	12,145,498	50,241,715
1900.....	13,374,238	1,502,099	14,876,337	11,968,330	53,149,722
1901.....	13,972,574	1,589,761	15,562,335	12,663,100	56,048,957
1902.....	14,769,126	1,662,259	16,431,385	14,042,355	58,437,987
1903.....	15,112,695	1,729,292	16,841,987	14,508,845	60,771,129
1904.....	14,617,733	1,792,799	16,410,532	15,023,211	62,158,450
1905.....	13,574,471	1,809,834	15,384,305	15,525,298	62,017,457
1906.....	14,109,869	1,800,926	15,910,795	16,017,630	61,910,622
1907 (4 mos).....	12,000,958	1,361,700	13,362,658	12,731,468	62,541,812 <sup>4</sup>
1908.....	14,809,848	1,805,943	16,615,791	16,576,448	62,581,155 <sup>4</sup>
1909.....	11,490,048	1,773,990	13,264,038	15,906,273	59,938,920 <sup>4</sup>
1910.....	10,936,713	1,706,048	12,642,761	14,317,452	58,264,229 <sup>4</sup>
1911.....	12,294,204	1,686,075	13,980,279	14,150,177	58,094,331 <sup>4</sup>
1912.....	13,894,956	1,681,027	15,575,983	15,450,986	58,219,328 <sup>4</sup>
1913.....	13,873,739	1,664,633	15,538,372	16,617,217	57,140,483 <sup>4</sup>
1914.....	13,850,421	1,627,142	15,477,563	17,050,597	55,567,449 <sup>4</sup>
1915.....	12,431,342	1,580,662	14,011,404	15,577,288	54,001,718 <sup>4</sup>
1916.....	10,739,234	1,567,231	12,306,465	12,779,756	53,528,427 <sup>4</sup>

<sup>1</sup>This amount includes \$1,442,047 at credit of depositors June 30, 1867. <sup>2</sup>Includes \$38,418 at credit of New Brunswick account in 1871. <sup>3</sup>Includes \$249,941 at credit of Prince Edward Island account in 1873. <sup>4</sup>March 31.



## FINANCE.

## 49.—Value of Dominion Notes and of Bank Notes in circulation, and amount of gold held by the Receiver-General, 1882-1916.

March 31.	One and Two Dollar Notes in Circulation.	Total Dominion Notes in Circulation.	Bank Notes in Circulation.	Gold held by the Receiver General.
	\$	\$	\$	\$
1882.....	5,675,413.00	14,315,437.77	32,947,269.04	2,149,461.92
1883.....	5,809,538.00	15,801,769.98	34,517,813.52	2,381,288.51
1884.....	5,427,385.00	16,901,296.46	30,197,882.51	2,548,794.52
1885.....	5,290,655.00	15,600,166.86	29,791,262.85	2,345,525.44
1886.....	5,195,631.00	16,858,838.28	29,959,916.55	4,060,046.84
1887.....	5,761,588.00	14,781,270.78	31,521,420.43	2,516,972.36
1888.....	5,933,659.00	15,601,559.11	31,985,285.27	3,452,022.09
1889.....	5,852,398.00	15,110,965.33	32,471,522.09	3,925,994.19
1890.....	5,974,395.00	15,228,780.65	31,704,281.61	3,017,109.53
1891.....	6,262,728.00	16,156,465.48	33,020,661.30	3,789,704.21
1892.....	6,211,976.00	16,213,525.76	32,483,965.00	3,728,465.36
1893.....	6,526,193.00	17,587,711.63	33,430,883.00	5,550,181.36
1894.....	6,362,517.00	19,548,102.45	30,702,607.00	7,624,381.36
1895.....	6,339,098.00	20,946,237.12	29,414,796.00	9,175,245.43
1896.....	6,606,214.00	18,791,747.62	30,789,457.00	7,049,897.33
1897.....	6,711,754.00	21,987,613.26	31,082,521.00	10,380,205.37
1898.....	7,306,574.00	21,142,624.76	35,930,085.00	9,779,170.97
1899.....	7,902,076.00	22,933,078.39	38,409,227.00	11,768,191.25
1900.....	8,599,618.00	24,452,442.52	43,814,918.00	10,829,263.02
1901.....	9,136,829.00	28,498,519.52	47,611,967.00	15,159,309.02
1902.....	9,546,552.00	29,868,112.05	52,442,982.00	15,939,396.55
1903.....	10,671,569.00	33,777,733.58	58,283,494.00	20,702,144.08
1904.....	11,241,646.00	39,777,831.33	59,760,119.00	27,377,814.83
1905.....	11,616,702.00	47,839,250.33	58,721,173.00	35,813,970.43
1906.....	12,697,203.00	47,201,260.22	65,991,818.00	32,617,209.02
1907.....	14,427,814.00	54,794,596.86	76,346,013.00	37,619,596.81
1908.....	14,119,524.00	60,455,991.36	69,047,892.00	41,689,751.31
1909.....	14,215,537.00	79,351,080.50	68,708,458.00	61,581,665.45
1910.....	15,728,269.00	87,134,068.50	78,265,822.00	69,736,110.85
1911.....	17,155,996.00	89,994,270.25	81,938,753.00	74,159,771.40
1912.....	19,356,015.00	113,443,633.40	95,918,404.00	98,802,395.14
1913.....	20,783,997.00	112,101,885.65	102,202,047.00	98,507,112.81
1914.....	20,605,876.00	117,795,638.53	96,848,384.00	101,161,366.18
1915.....	20,236,008.50	157,056,118.91	96,666,544.00	94,644,423.44
1916.....	21,927,267.50	177,943,131.54	114,804,604.00	120,931,622.98

## LOAN AND TRUST COMPANIES.

## LOAN AND TRUST COMPANIES.

**Loan and Trust Companies.**—Up to and including the year 1913 tables were given in the Year Book of the assets and liabilities, with comparative figures for a series of years, of loan companies and building societies. These tables were taken from the "Annual Report of the Affairs of Building Societies, Loan and Trust Companies in the Dominion of Canada," as issued by the Department of Finance. The statistics in this Report were compiled by the Department of Finance partly from the statements required to be furnished under legislation of the Dominion Parliament and partly from returns voluntarily made by corporations operating under provincial charters. The laws relating to loan and trust companies incorporated by Acts of the Parliament of Canada were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), and since the passing of these Acts the Annual Report issued by the Department of Finance up to and including the year 1913, has been replaced for the years 1914 and 1915 by "Annual Statements of the Loan and Trust Companies incorporated by Acts of the Parliament of Canada." Tables 50 and 51 show therefore the liabilities and assets of the loan and trust companies as compiled from these statements. They relate to 14 loan and 13 trust companies, and do not include companies or societies operating under provincial charters.

## 50.—Liabilities and Assets of Loan Companies, 1914-1915.

## LIABILITIES.

Year.	Capital paid up in cash.	Reserve Fund.	Debentures.			Deposits.		Other liabilities.	Total liabilities.
			payable in Canada.	payable elsewhere.	Stock issued.	payable on demand.	payable after notice.		
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1914.....	19,238,512	9,374,363	6,688,124	22,745,770	1,296,480	5,611,174	2,492,898	3,140,770	70,588,091
1915.....	19,401,856	9,878,266	6,764,836	22,279,861	1,390,869	5,471,355	3,721,839	3,063,784	71,992,666

## ASSETS.

Year.	Loaned on mortgages and hypothecques.	Loaned upon and invested in				Cash on hand and in banks.	Interest due.	Other Assets.	Total Assets.
		Government, municipal and school securities.	Bonds of incorporated companies.	Stocks of incorporated companies.	Bank stocks.				
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1914.....	53,710,084	775,783	1,162,442	7,659,052	1,069,317	3,220,803	591,443	2,299,167	70,588,091
1915.....	52,967,335	1,480,635	2,662,714	7,314,865	1,619,792	3,963,094	679,966	2,631,455	71,992,666

## FINANCE.

## 51.—Liabilities and Assets of Trust Companies, 1914-1915.

## LIABILITIES.

Year.	Liabilities to Shareholders.			Other liabilities.	Total liabilities of the companies	Liabilities to the Public.			Total liabilities to the public.
	Capital paid up in cash.	Reserve Fund.	Other liabilities to Shareholders.			Money in trust for investment.	Trust funds for investment-guaranteed.	Estate trusts and agencies under administration.	
1914.....	\$ 6,051,146	\$ 2,541,413	\$ 202,427	\$ 1,948,414	\$ 10,743,400	\$ 2,562,455	\$ 5,998,013	\$ 29,832,343	\$ 38,392,811
1915.....	\$ 5,307,128	\$ 1,159,479	\$ 233,738	\$ 606,005	\$ 7,306,350	\$ 3,113,170	\$ 6,613,929	\$ 31,002,934	\$ 40,730,033

## ASSETS.

Year.	Loans				Government municipal and school securities owned.	Cash on hand and in banks.	Market value of real estate, government securities, etc., over book value.	All other assets.	Total Assets of the companies
	on real estate secured by mortgage and hypothèques.	on real estate other than on first mortgages or hypothèques.	on stocks of incorporated companies	on securities of incorporated companies					
1914.....	\$ 5,189,797	\$ 113,095	\$ 303,939	\$ 253,686	\$ 737,400	\$ 179,928	\$ 879,039	\$ 3,033,756	\$ 10,740,640
1915.....	\$ 3,972,520	\$ 102,395	\$ 110,692	\$ 536,832	\$ 876,760	\$ 172,448	\$ 5,181	\$ 1,529,522	\$ 7,306,350

## COMMERCIAL FAILURES.

**Commercial Failures in Canada, 1916.**—According to Bradstreet's of January 6, 1917, the total number of Canadian failures reported during the calendar year 1916 was 1,772, with liabilities of \$15,952,684. In number there was a decrease in 1916 of 32.39 p. c., as compared with 1915, while the liabilities decreased by 50.36 p. c. Dun's Review of the same date gives the total number of Canadian insolvencies in 1916 as 1,677, as compared with 2,652 in 1915, whilst liabilities reached in 1916 the total of \$24,985,908, as compared with \$40,676,621 in 1915. Tables 52 to 54 give the statistics from both authorities, those from Bradstreet's (Table 52) being classified by provinces for the calendar years 1915 and 1916 and those for Dun's Review, including Newfoundland, being classified by branches of business for the calendar years 1914 to 1916 (Table 53) and by classes and provinces for the calendar year 1916, with totals for the years 1907 to 1915, including Newfoundland (Table 54).

## 52.—Commercial Failures in Canada, by Provinces, for the Calendar Years 1915 and 1916. (From Bradstreet's.)

Provinces.	No. of Failures.		Assets.		Liabilities.	
	1915.	1916.	1915.	1916.	1915.	1916.
Prince Edward Island...	3	5	\$ 44,982	\$ 8,860	\$ 52,381	\$ 19,015
Nova Scotia.....	70	40	513,836	81,521	881,991	231,968
New Brunswick.....	54	43	150,824	125,037	271,657	274,110
Quebec.....	785	539	5,336,333	2,978,012	12,604,439	6,894,322
Ontario.....	702	566	2,741,114	1,442,748	5,876,947	3,425,090
Manitoba.....	284	173	1,126,453	461,335	3,333,618	2,081,857
Saskatchewan.....	264	136	1,012,636	504,598	2,749,422	1,209,523
Alberta.....	216	150	976,886	372,671	1,904,638	753,679
British Columbia.....	243	120	2,324,128	374,296	4,459,219	1,063,120
Canada.....	2,621	1,772	14,227,192	6,349,078	32,134,312	15,952,684

## COMMERCIAL FAILURES.

## 53.—Commercial Failures in Canada by Branches of Business, 1914-1916.

(From Dun's Review.)

Classes.	1914.		1915.		1916.	
	Num- ber.	Liabil- ities.	Num- ber.	Liabil- ities.	Num- ber.	Liabil- ities.
<b>Manufacturers—</b>		\$		\$		\$
Iron and Foundries.....	10	213,302	8	90,005	9	330,605
Machinery and Tools.....	37	612,190	51	730,998	14	151,590
Woolens, Carpets, etc.....	1	70,000	5	45,300	2	9,400
Cotton, Hosiery, etc.....	1	235,000	2	6,100	2	501,900
Lumber, Carpenters.....	98	3,934,340	175	4,115,701	47	3,290,284
Clothing, Millinery.....	102	923,359	2	1,180,201	51	259,558
Hats, Gloves and Furs....	18	150,490	12	541,202	5	72,800
Chemicals and Drugs.....	8	201,921	21	354,498	1	5,000
Paints and Oils.....	1	70,000	—	—	2	11,200
Printing, Engraving.....	33	265,441	32	282,302	24	146,440
Milling and Bakers.....	38	100,268	46	381,392	40	266,019
Leather, Shoes, etc.....	23	380,222	14	410,503	13	299,804
Liquors and Tobacco.....	9	71,614	12	521,802	10	592,701
Glass, Earthenware.....	24	635,244	25	1,611,701	15	1,371,062
All other.....	211	3,199,800	250	3,605,709	128	1,488,283
<b>Total manufacturing...</b>	<b>614</b>	<b>11,063,191</b>	<b>655</b>	<b>13,877,414</b>	<b>363</b>	<b>8,796,646</b>
<b>Traders—</b>						
General Stores.....	372	4,271,004	295	4,333,693	217	1,835,694
Groceries and Meats.....	476	3,266,396	414	1,676,007	315	1,298,125
Hotels, Restaurants.....	149	1,716,798	162	3,368,502	127	1,901,753
Liquors and Tobacco.....	84	310,989	88	632,903	49	433,134
Clothing, Furnishing.....	317	2,455,390	223	2,534,096	120	1,172,064
Dry Goods and Carpets...	161	1,607,725	130	1,902,208	72	1,341,716
Shoes, Rubbers and Trunks	91	872,219	75	678,804	58	262,325
Furniture, Crockery.....	53	417,344	53	521,904	25	541,417
Hardware, Stoves & Tools.	77	401,441	86	1,150,795	52	581,917
Chemicals and Drugs.....	33	351,311	31	280,805	22	116,549
Paints and Oils.....	2	12,000	—	—	3	25,000
Jewellery and Clocks.....	57	406,201	41	295,005	29	183,066
Books and Papers.....	19	120,221	26	124,308	16	63,945
Hats, Furs and Gloves....	16	466,833	18	392,597	10	78,274
All other.....	257	2,002,063	246	3,805,263	122	2,455,389
<b>Total trading .....</b>	<b>2,164</b>	<b>18,677,935</b>	<b>1,888</b>	<b>21,696,890</b>	<b>1,237</b>	<b>12,290,368</b>
<b>Agents and Brokers .....</b>	<b>120</b>	<b>5,303,968</b>	<b>118</b>	<b>5,588,017</b>	<b>85</b>	<b>3,982,520</b>
<b>Total.....</b>	<b>2,898</b>	<b>35,045,094</b>	<b>2,661</b>	<b>41,162,321</b>	<b>1,685</b>	<b>25,069,534</b>



## FINANCE.

54.—Commercial Failures in Canada by Provinces and Classes for 1916, with totals for 1907-1915. (From Dun's Review.)

Provinces.	Total Commercial.			Manufacturing.	
	Num-ber.	Assets.	Liabil-ities.	Num-ber.	Liabil-ities.
Prince Edward Island.....	6	\$ 9,730	\$ 64,411	-	\$ -
Nova Scotia.....	51	144,440	373,439	7	36,600
New Brunswick.....	53	188,794	337,172	8	56,610
Quebec.....	513	5,639,143	8,068,306	114	2,979,774
Ontario.....	510	3,894,118	6,404,868	126	2,540,674
Manitoba.....	162	4,727,123	3,912,606	39	1,271,362
Saskatchewan.....	141	1,090,416	1,551,837	13	120,321
Alberta.....	119	2,146,349	2,263,131	20	869,527
British Columbia.....	122	1,800,590	2,010,138	33	910,362
<b>Total 1916.....</b>	<b>1,677</b>	<b>19,640,703</b>	<b>24,985,908</b>	<b>360</b>	<b>8,785,230</b>
Newfoundland.....	8	29,839	83,626	3	11,416
Total 1915.....	2,661	39,526,358	41,162,321	655	13,877,414
" 1914.....	2,898	30,909,563	35,045,095	614	11,063,191
" 1913.....	1,719	12,658,979	16,979,406	452	6,792,763
" 1912.....	1,357	8,783,409	12,316,936	323	4,556,615
" 1911.....	1,332	9,964,604	13,491,196	321	4,760,016
" 1910.....	1,262	11,013,396	14,514,650	292	7,030,227
" 1909.....	1,442	10,318,511	12,982,800	354	3,933,938
" 1908.....	1,640	12,008,113	14,931,790	426	5,967,498
" 1907.....	1,278	9,443,227	13,221,250	393	6,667,452

Provinces.	Trading.		Other Commercial.		Banking.	
	Num-ber.	Liabil-ities.	Num-ber.	Liabil-ities.	Num-ber.	Liabil-ities.
Prince Edward Island.....	6	\$ 64,411	-	\$ -	-	\$ -
Nova Scotia.....	42	300,839	2	36,000	-	-
New Brunswick.....	45	280,562	-	-	-	-
Quebec.....	372	3,893,846	27	1,194,686	-	-
Ontario.....	360	2,734,936	24	1,129,257	-	-
Manitoba.....	113	1,970,932	10	670,312	-	-
Saskatchewan.....	123	1,366,414	5	65,102	-	-
Alberta.....	94	812,104	5	581,500	-	-
British Columbia.....	77	794,114	12	335,662	-	-
<b>Total 1916.....</b>	<b>1,232</b>	<b>12,218,158</b>	<b>85</b>	<b>3,982,520</b>	<b>-</b>	<b>-</b>
Newfoundland.....	5	72,210	-	-	-	-
Total 1915.....	1,888	21,696,890	118	5,588,017	1	150,000
" 1914.....	2,164	18,677,935	120	5,303,968	1	250,000
" 1913.....	1,216	8,681,419	51	1,505,224	1	125,000
" 1912.....	975	6,906,665	59	853,656	-	-
" 1911.....	986	7,606,891	5	1,124,289	1	71,194
" 1910.....	947	6,943,579	23	540,850	2	2,546,871
" 1909.....	1,059	7,867,287	29	1,181,575	-	-
" 1908.....	1,171	8,242,436	43	712,856	2	2,137,224
" 1907.....	847	5,756,651	38	797,156	-	-

NOTE.—Newfoundland included in totals 1907-1915.

## GOVERNMENT ANNUITIES.

Under the Government Annuities Act, 1908 (7-8 Edw. VII, c. 5). His Majesty the King, represented by the Minister (at present the Postmaster General), may sell to persons domiciled in Canada immediate or deferred annuities of not less than \$50 nor more than \$1,000 (1) for the life of the annuitant; (2) for a term of years certain, not exceeding twenty years, provided the annuitant shall so long live; (3) for a term of years certain, not exceeding twenty years, or for the life of the annuitant, whichever period shall be the longer; and (4) an immediate or deferred annuity to any two persons domiciled in Canada during their joint lives, and with or without continuation to survivor. The property and interest of any annuitant in any contract for an annuity is neither transferable nor attachable. Except upon the occurrence of invalidity or disablement of an annuitant, no annuity on a separate life is payable unless the annuitant has reached the age of 55. The purchaser may contract that in the event of the death of the annuitant before the date fixed for the annuity to begin all money paid shall be refunded to his heirs with interest at the rate of three per cent., compounded yearly. Statistics of the annuities in force on March 31, 1917, are given in Tables 55-57. From September 1, 1908, to March 31, 1917, 4,305 annuities have been issued, of which 145 have been cancelled on account of death, leaving on March 31, 1917, 796 immediate annuities and 3,364 deferred annuities, a total of 4,160 contracts in force. The total value of these annuities is \$916,875.95, and the amount received for annuities purchased is \$3,316,680.20.

55.—Number of Immediate Annuities of each amount paid in full from September 1, 1908, to March 31, 1917.

## MALES.

Ages.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900	\$1000
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
55-59.....	31	20	8	8	12	6	0	0	2	3
60-64.....	28	19	18	6	3	11	0	0	0	2
65-69.....	39	18	10	8	2	14	1	0	0	4
70-74.....	23	17	14	11	2	12	1	1	2	1
75-79.....	13	8	5	5	1	4	0	0	0	2
80-85.....	10	3	0	1	0	0	0	0	0	1

## FEMALES.

Ages.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900	\$1000
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
55-59.....	49	24	16	8	6	4	0	0	0	0
60-64.....	38	13	12	4	3	9	0	0	0	4
65-69.....	44	14	12	6	2	4	1	0	1	1
70-74.....	36	17	8	2	2	6	0	0	0	1
75-79.....	8	10	3	1	4	1	0	0	0	0
80-85.....	6	2	0	1	0	3	0	0	0	0

## FINANCE.

56.—Number of Deferred Annuities of each amount purchased by lump sums, lump sums and annual payments, and periodical payments from September 1, 1908, to March 31, 1917.

## MALES.

Ages.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900	\$1000
5- 9.....	123	23	6	3	2	5	-	-	-	1
10-19.....	310	31	24	6	11	10	-	-	-	4
20-29.....	274	103	82	29	30	55	1	1	-	3
30-39.....	200	74	89	32	15	52	-	1	-	8
40-49.....	117	44	42	24	13	18	1	-	-	10
50-59.....	39	20	6	1	2	7	-	-	-	1
60-69.....	4	0	0	0	0	1	-	-	-	0

## FEMALES.

5- 9.....	32	9	15	1	4	3	-	-	-	2
10-19.....	117	16	12	3	1	14	-	-	-	1
20-29.....	179	66	57	8	6	24	-	-	-	1
30-39.....	171	98	66	21	13	22	1	-	-	3
40-49.....	157	67	38	24	8	18	-	1	-	4
50-59.....	25	13	8	1	1	3	-	-	-	0
60-69.....	3	0	0	0	0	0	-	-	-	0

NOTE.—Annuitants numbering 49, who have not yet furnished their ages, are not included in the above table.

57.—Valuation on March 31, 1917, of Annuity Contracts issued pursuant to the Government Annuities Act, 1908.

Description of Contract.	No.	Amount of Annuities.	Value of Annuities Purchased.
Immediate Annuities.....	540	\$ 139,797.90	\$ 1,096,464.00
Immediate Annuities guaranteed.....	182	43,117.99	420,866.00
Immediate Last Survivor (on 2 lives).....	74	21,979.57	226,829.00
Deferred, Plan "A".....	1,125	227,208.19	463,683.83
Deferred, Plan "A", guaranteed.....	1,785	356,648.67	443,819.09
Deferred, Last Survivor (on 2 lives).....	35	9,792.64	51,962.81
Deferred, Plan "B".....	419	118,330.99	363,034.88
Total number of contracts in force.....	4,160	916,875.95	3,066,659.61

## INSURANCE.

**Insurance Statistics.**—Insurance companies doing business throughout the Dominion of Canada are licensed by the Dominion Government under acts administered by an Insurance Department under the Minister of Finance. The insurance statistics in Tables 58-81, which are restricted to companies doing business under license from the Dominion Government and do not therefore include the business of companies operating under license from the Provincial Governments, are compiled from the Reports of the Superintendent of Insurance, and are divided into three classes relating (1) to insurance against fire; (2) to life insurance and (3) to insurances of a miscellaneous character covering risks of accident, guarantee, employer's liability, sickness, burglary, hail, steam boilers, tornado, weather, inland transportation, automobiles, sprinkler leakage, live stock and title. They refer in all cases to the calendar year.

Complete and final statistics of the Insurance Department are available for the year 1915 and 1916 in respect of fire insurance and insurance other than fire and life, as given in Tables 58 and 59 and 76-81. For life insurance the figures are complete and final up to and including the year 1915; but for 1916 they are taken from the "Abstract of Statements of Insurance Companies in Canada," issued subject to correction on March 5, 1917. Table 67 is new, and has been added to show the provincial distribution of the net premiums written and net losses paid by Canadian, British and United States companies, respectively.

**Fire Insurance.**—Fire insurance was carried on in 1916 by 87 companies, as compared with 88 companies in 1915. Of the 87 companies in 1916, 25 were Canadian, 27 British, 31 United States and four French, these numbers being the same as for 1915, except that there were 32 companies in the United States instead of 31. The gross amount of fire policies, new and renewed, taken during the year 1916, was \$3,418,238,680, which is greater by \$306,685,777 than the amount taken in 1915. Premiums charged in 1916 amounted to \$37,231,691, as compared with \$36,048,345 in 1915. The net amount at risk in 1916 was \$3,720,058,236.

**Life Insurance.**—The business of life insurance in Canada was transacted in 1915 by 44 active companies, including 26 Canadian, seven British, one Colonial and ten United States. During 1915 and the latter part of 1914 the life companies were faced with difficulties such as have never before been experienced in Canada. On the outbreak of war, they were confronted with an immediate depreciation in all classes of securities, a complete demoralization of security markets and a prospective large increase in claims arising out of the war. While these difficulties were recognized during the latter part of 1914, the seriousness of the conflict was perhaps not fully realized until 1915, and with the indications which the events of that year gave of a prolonged struggle and of the necessity of further Canadian contingents, the companies were forced to modify their practices in respect of the insurance of enlisted men. The provision made by the companies generally to meet the changed conditions is described in Vol. II (Life Insurance Companies) of the Report for 1915 of the Superintendent of Insurance,



## FINANCE.

pp. ci-cv. Notwithstanding the difficulties arising out of the war the total amount of policies in Canada taken during the year 1915 was \$221,119,558, which is greater than the amount taken in 1914 by \$1,113,042. The Canadian companies show a decrease in 1915 of \$1,472,014, whilst in 1914 they had a decrease of \$5,988,258; the British companies have a decrease of \$3,567,277, whilst in 1914 they had an increase of \$2,343,895; and the American companies have an increase of \$12,152,333, whilst in 1914 they had a decrease of \$10,957,667. The respective amounts effected were: Canadian companies \$121,033,310, British and Colonial companies \$5,727,313 and United States companies \$94,358,935. Thus the amount taken by Canadian companies exceeds that taken by the British and Colonial and United States companies together by \$20,947,062. The total amount of life insurance in force in Canada for the year 1915 at the date of the statements rendered was \$1,311,616,677, an increase over 1914 of \$69,456,199, these figures being distributed among the three different classes of companies as follows: Canadian \$829,972,809 (increase \$35,452,386); British and Colonial \$58,087,018 (decrease \$2,683,640); United States \$423,556,850 (increase \$36,687,453).

**Life Insurance on the Assessment Plan.**—Table 75 gives the statistics of life insurance on the assessment plan, that is, insurance effected through fraternal or friendly societies by assessments on the members thereof and with annual dues to meet expenses. The statistics in these tables relate, however, only to the four societies reporting to the Insurance Department of the Dominion Government, viz., the Catholic Mutual Benefit Association, the Commercial Travellers' Mutual Benefit Society, the Independent Order of Foresters (whose statistics include sick and funeral departments) and the Woodmen of the World.

**Insurance other than Fire or Life.**—Insurance business other than fire or life was carried on in Canada in 1916 by 80 companies: 27 Canadian, 15 British and 38 United States. In 1915 the corresponding figures were: 28 Canadian, 14 British and 35 United States, a total of 77. Forty-one of these companies in 1916 (27 in 1915) likewise transacted fire insurance, and one company in both years transacted life insurance. In addition there were in both years five fraternal orders or societies which carried on sickness insurance and also life insurance. Of the 27 Canadian companies in 1916 (28 in 1915), 19 (21 in 1915) transacted miscellaneous classes of business only. The combined assets of the 19 companies amounted in 1916 to \$6,845,744, as compared with \$7,425,487 in 1915. The total liabilities in 1916 were \$1,883,844, as compared with \$2,033,488. The excess of assets over liabilities in 1916 was thus \$4,961,899, as compared with \$5,391,999, the excess of assets over liabilities in 1915.

**Insurance under Dominion and Provincial Licenses combined.**—In Vol. I of his Report for 1915 (Insurance Companies other than Life), the Superintendent of Insurance stated that he had endeavoured to collect from the available sources the figures for the business transacted by companies holding licenses from the Provincial Governments of Can-

## INSURANCE.

ada, or permitted by the laws of the provinces to transact business without a license. The business of the provincial licensees is divisible into three classes: (1) business transacted by provincially incorporated companies within the province by which they are incorporated; (2) business transacted by provincially incorporated companies in provinces other than those by which they are incorporated and (3) business transacted by British and foreign companies licensed by the Provincial Governments. On page lxvi of the Report for 1915 of the Superintendent of Insurance appears a table showing for life and fire insurance and for miscellaneous classes of insurance (excluding marine), and for Dominion and provincial licensees respectively, the amount of premiums received and claims paid for the year 1914. According to this table the total amount of the premiums received in 1914 for life insurance was \$44,820,816 of which \$43,376,950 represents the business of Dominion licensees; and the claims paid amounted to \$16,656,479, of which \$16,591,354 were paid by Dominion licensees. For fire insurance the total premiums received were \$31,351,001, including \$27,499,158 by Dominion licensees, and the claims paid totalled \$17,620,846, including \$15,347,284 by Dominion licensees. The premiums received for miscellaneous classes of insurance, excluding marine, amounted to \$10,769,707, of which \$9,255,143 were received by Dominion licensees, and the claims paid were \$5,056,094, including \$4,605,411 paid by Dominion licensees. In Vol. I of the Report for 1916 of the Superintendent of Insurance it is further stated that information was collected from provincial licensees in respect of the year 1916 as to (1) the net amount of insurance written; (2) the net amount of insurance in force at the end of the year; (3) net premiums received and (4) net losses paid. The information thus collected for fire, life and other classes of insurance is given in Tables 82-85, following Tables 58-81 which are restricted to the business of companies operating under Dominion license. In Table 86 are added particulars respecting the amount of insurance effected under Section 139 of the Insurance Act 1910, i.e., insurance effected, under specified conditions, of property in Canada, with associations outside of Canada which are not licensed to transact insurance business in Canada. According to Tables 82-86 the total fire insurance effected in 1916 on property situated in Canada was \$4,049,314,201, including \$3,418,238,680 with Dominion licensees, \$368,271,639 with provincial licensees and \$262,803,882 with unlicensed companies (Table 86). The total net amount of life insurance in force at December 31, 1916 (Table 85) was \$1,861,958,085, of which \$1,513,860,856 was with Dominion licensees. The bulk of the life business of the provincial licensees is transacted by fraternal companies.

## FINANCE.

## 58.—Fire Insurance Business transacted in Canada, 1915.

Companies.	Gross Amount of Policies new and renewed.	Premiums charged thereon.	Rate of pre- miums per cent of risks.	Net cash received for Premiums	Net cash paid for Losses.	Per- cent- age of losses paid to pre- miums recei- ved.
	\$	\$	p.c.	\$	\$	p.c.
<b>Canadian Companies.</b>						
Acadia .....	16,405,713	219,729	1.34	112,009	93,607	83.57
Anglo-American .....	18,590,599	256,873	1.38	152,045	117,245	77.11
Beaver .....	5,304,836	86,936	1.64	30,943	1,548	5.00
British America .....	77,840,123	843,500	1.08	506,735	284,695	56.18
British Colonial .....	9,227,747	144,266	1.56	64,722	77,723	102.09
British Northwestern .....	4,520,073	83,070	1.84	49,953	32,622	65.31
Canada National .....	23,223,662	354,150	1.52	202,511	86,858	42.89
Canadian .....	27,494,130	419,880	1.53	269,301	112,465	41.76
Dominion .....	22,855,580	311,061	1.36	207,537	143,303	69.05
Dominion of Canada .....	999,406	11,392	1.14	4,691	188	4.01
Factories .....	20,937,423	329,099	1.57	142,623	133,933	93.91
Hudson Bay .....	10,211,949	159,322	1.56	90,052	65,151	72.35
Imperial Underwriters .....	9,073,454	118,905	1.31	97,070	64,379	66.32
Liverpool-Manitoba .....	3,935,805	463,840	1.29	266,296	131,870	49.52
London Mutual .....	74,392,919	777,400	1.04	466,924	281,380	60.26
Lumbermen's F. I. Contract .....	1,647,361	37,740	2.29	3,782	None.	—
Mercantile .....	25,973,436	275,877	1.06	224,319	135,375	60.35
Montréal-Canada .....	10,004,400	139,177	1.39	88,871	89,385	100.58
Mount Royal .....	52,547,074	652,925	1.24	411,074	161,653	39.32
North Empire .....	10,967,271	189,031	1.72	111,107	57,905	52.12
Northwest .....	15,240,882	194,647	1.28	139,874	84,093	60.12
Occidental .....	9,915,169	192,163	1.94	112,498	68,673	61.04
Pacific Coast .....	11,801,090	153,501	1.30	79,639	32,477	40.78
Quebec .....	27,282,543	295,838	1.08	236,366	84,120	35.59
Western .....	150,851,486	1,717,642	1.14	488,130	285,221	58.43
<b>Totals</b> .....	<b>673,244,131</b>	<b>8,427,965</b>	<b>1.25</b>	<b>4,559,074</b>	<b>2,625,867</b>	<b>57.60</b>
<b>British Companies.</b>						
Alliance .....	25,152,607	240,929	0.96	215,168	90,382	42.00
Atlas .....	46,970,299	598,555	1.27	515,974	310,587	60.19
British Dominions General .....	11,880,708	131,885	1.11	96,456	57,898	60.02
Caledonian .....	43,763,253	499,819	1.14	433,157	237,083	54.73
Commercial Union .....	119,540,603	1,326,042	1.11	937,766	471,565	50.29
Employers' Liability General Accident Fire and Life .....	39,842,657	427,755	1.07	346,005	189,959	54.90
Guardian Ass'c. Co. ....	32,272,798	383,048	1.19	289,316	126,881	43.86
Law Union and Rock .....	87,571,292	1,131,108	1.29	970,601	482,686	49.73
	27,280,780	308,859	1.13	257,994	182,822	70.86

## INSURANCE.

58.—Fire Insurance Business transacted in Canada, 1915.—con.

Companies.	Gross amount of policies new and renewed.	Premiums charged thereon.	Rate of premiums per cent. of risks.	Net cash received for Premiums	Net cash paid for Losses.	Percentage of losses paid to premiums received.
	\$	\$	p.c.	\$	\$	p.c.
British Companies— con.						
Liverpool and London and Globe.....	137,545,930	1,661,460	1.21	1,342,437	710,524	52.93
London Guarantee and Accident.....	386,254	3,675	0.95	1,198	None.	-
London and Lanca- shire Fire.....	80,100,138	888,727	1.11	703,503	333,860	47.46
London Assurance....	32,671,206	371,390	1.14	300,984	139,186	46.24
North British and Mercantile.....	97,395,448	1,093,294	1.12	927,240	495,777	53.47
Northern Ass'ce. Co..	68,448,611	875,839	1.28	770,010	385,857	50.11
Norwich Union Fire..	72,435,907	871,804	1.20	735,400	391,006	53.17
Ocean Accident and Guarantee.....	3,918,715	54,000	1.38	43,171	9,383	21.74
Palatine Insurance Co	29,278,665	362,279	1.24	247,026	112,917	45.71
Phoenix of London....	97,527,941	1,244,386	1.28	935,794	390,595	41.74
Provincial.....	5,937,340	43,815	0.74	40,473	19,781	48.88
Royal Exchange.....	43,501,250	457,346	1.05	379,111	172,056	54.38
Royal Insurance Co..	150,733,604	1,725,350	1.14	1,429,655	695,908	48.68
Scottish Union and National.....	42,337,867	439,155	1.04	372,392	160,164	43.01
Sun Insurance Office..	46,815,191	567,488	1.21	483,707	267,578	55.32
Union Assurance So- ciety.....	56,691,850	640,096	1.13	474,056	244,608	51.60
Yorkshire.....	38,036,807	459,297	1.21	360,769	210,298	58.29
<b>Totals.....</b>	<b>1,438,037,721</b>	<b>16,807,401</b>	<b>1.17</b>	<b>13,609,363</b>	<b>6,889,360</b>	<b>50.62</b>
American and Other Companies.						
Ætna Insurance Co...	31,727,746	388,890	1.23	314,501	218,329	69.42
American Central....	23,430,734	226,736	0.97	123,338	53,203	43.14
American Insurance Co	4,745,288	78,877	1.66	62,633	22,104	35.29
American Lloyds.....	5,288,200	19,652	0.37	18,299	1,577	8.62
California Insurance Co.....	3,263,688	57,790	1.77	37,130	16,940	45.62
Connecticut Fire.....	13,084,257	159,671	1.22	116,960	61,620	52.68
Continental Insurance Co.....	34,511,980	354,095	1.03	259,816	134,112	51.62
Equitable Fire and Marine.....	13,742,357	159,802	1.16	29,863	13,775	46.13
Fidelity-Phoenix.....	38,346,677	439,197	1.15	330,390	196,961	59.61
Fireman's Fund.....	11,624,306	119,265	1.03	111,074	53,843	48.47



## FINANCE.

## 58.—Fire Insurance Business transacted in Canada, 1915—concluded.

Companies.	Gross Amount of Policies new and renewed.	Premiums charged thereon.	Rate of pre- miums per cent of risks.	Net cash received for Premiums	Net cash paid for Losses.	Per- cent- age of losses paid to pre- miums recei- ved.
	\$	\$	p.c.	\$	\$	p.c.
American and Other Companies—con.						
Firemen's Insurance Co.	6,634,613	90,233	1.36	70,360	27,968	39.75
Compagnie d'Assur- ances Générales....	8,410,818	101,053	1.20	63,258	43,508	68.78
German American....	62,232,448	526,385	0.85	370,849	214,572	57.86
Germania Fire.....	4,361,573	72,336	1.66	27,419	37,468	136.65
Gleason's.....	13,744,428	189,202	1.38	142,722	64,409	45.13
Globe and Rutgers...	45,820,828	365,891	0.80	278,165	102,908	37.00
Hartford Fire.....	111,057,076	1,056,314	0.95	899,129	461,245	51.30
Home Insurance Co.	97,029,178	1,066,269	1.10	929,416	459,169	49.40
Insurance Co. of North America.....	47,268,428	516,764	1.09	430,767	248,106	57.60
Insurance Co. of State of Pa.....	17,603,934	219,922	1.25	164,561	73,492	44.66
Lumber Insurance Co.	None.	None.		6,555	1,640	25.02
Millers National.....	2,436,455	29,314	1.20	24,927	5,992	24.04
National-Ben Franklin	9,168,243	106,274	1.16	84,225	63,784	75.73
National Fire of Hart- ford.....	66,982,757	703,563	1.05	494,643	462,862	93.58
National Union Fire of Pittsburgh, Pa....	20,947,024	268,043	1.28	209,848	109,073	51.98
La Nationale Com- pagnie d'Assurances	15,051,406	191,635	1.27	148,557	68,357	46.01
Niagara Fire.....	15,851,908	200,550	1.27	172,749	83,073	48.09
Northwestern National.....	13,129,420	157,362	1.20	134,648	78,625	58.39
Phenix Compagnie Française.....	3,644,889	39,350	1.08	24,238	4,343	17.92
Phoenix, of Hartford..	44,633,485	524,072	1.17	368,014	190,790	51.84
Providence Washing- ton.....	20,769,767	245,637	1.18	197,743	130,804	66.15
Queen, of America....	57,948,174	726,410	1.25	604,103	321,095	53.15
Springfield Fire and Marine.....	75,635,139	631,774	0.84	479,481	287,942	60.05
St. Paul Fire and Marine.....	24,914,001	326,150	1.31	243,040	122,113	48.26
L'Union, Paris, France	20,797,990	250,950	1.21	186,233	118,084	63.41
Westchester Fire.....	14,431,836	203,537	1.41	136,742	92,836	67.89
<b>Totals</b> .....	<b>1,000,271,051</b>	<b>10,812,979</b>	<b>1.08</b>	<b>8,306,394</b>	<b>4,646,722</b>	<b>55.94</b>
<b>Grand Totals</b> .....	<b>3,111,552,903</b>	<b>36,048,345</b>	<b>1.16</b>	<b>26,474,832</b>	<b>14,161,949</b>	<b>53.49</b>

## INSURANCE.

## 59.—Fire Insurance Business transacted in Canada, 1913.

Companies.	Gross Amount of Policies new and renewed.	Premiums charged thereon.	Rate of premiums per cent of risks.	Net cash received for Premiums.	Net cash paid for Losses.	Percentage of losses paid to premiums received.
	\$	\$	p.c.	\$	\$	p.c.
Canadian Companies.						
Acadian Fire.....	17,437,231	226,911	1.30	110,968	83,954	75.66
Beaver Fire.....	5,180,548	81,560	1.57	27,838	8,651	31.07
British America.....	107,750,412	1,228,311	1.14	679,119	307,959	45.35
British Colonial.....	12,309,583	179,947	1.46	87,887	77,235	87.88
British Northwestern.	5,440,482	95,104	1.75	56,212	25,899	46.07
Canada Accident.....	3,701,149	40,651	1.10	5,546	5,133	92.55
Canada National.....	21,892,153	318,728	1.46	170,189	118,220	69.46
Canadian Fire.....	29,073,087	428,681	1.47	273,449	98,389	35.98
Canadian Lumbermen's Ins. Exc.....	985,655	20,419	2.07	180	None	—
Dominion Fire.....	25,840,101	337,551	1.31	212,538	108,598	51.09
Dominion of Can. Gtee. and Acct.....	3,139,471	39,410	1.26	26,257	6,304	24.01
Factories.....	14,847,441	242,031	1.63	111,797	76,386	68.33
Hamilton Fire.....	10,544,394	81,218	0.77	41,186	22,588	54.84
Hudson Bay.....	18,543,976	234,052	1.26	130,169	85,470	65.66
Imperial Underwriters	16,114,339	130,671	0.81	96,958	46,762	48.23
Liverpool Manitoba..	37,264,142	449,520	1.21	233,556	140,282	60.07
London Mutual.....	70,707,648	670,194	0.95	397,458	279,365	70.29
Mercantile Fire.....	30,865,259	301,166	0.98	245,758	148,490	60.42
Mount Royal.....	59,986,872	715,441	1.19	381,590	182,855	47.92
North Empire Fire...	12,187,370	200,930	1.65	80,436	103,303	128.43
North West Fire....	14,204,920	172,636	1.22	125,923	94,041	74.68
Occidental Fire.....	16,489,699	265,032	1.61	127,632	54,518	42.71
Pacific Coast.....	11,781,872	151,706	1.29	90,661	29,814	32.89
Quebec Fire.....	30,136,463	310,887	1.03	257,956	152,069	58.95
Western.....	166,381,652	1,884,858	1.13	846,619	339,287	40.08
<b>Totals.....</b>	<b>742,805,919</b>	<b>8,807,615</b>	<b>1.19</b>	<b>4,817,876</b>	<b>2,595,576</b>	<b>53.87</b>
British Companies.						
Alliance.....	28,042,379	274,546	0.98	246,250	114,759	46.60
Atlas.....	49,077,491	577,681	1.18	495,108	337,971	68.26
British Dominions						
General.....	11,313,641	121,372	0.99	90,277	62,429	69.15
Caledonian.....	45,458,083	498,455	1.10	426,418	290,004	68.01
Commercial Union.	141,666,541	1,317,308	0.93	1,013,179	639,752	63.14
Employers' Liability	49,467,297	516,403	1.04	420,791	189,871	45.12
General Accident						
Fire and Life.....	29,149,191	365,833	1.26	329,491	154,823	46.99
Guardian Assoc. Co.	95,967,518	1,185,971	1.24	989,086	588,909	59.54
Law Union and Rock	27,193,781	293,558	1.08	246,634	131,146	53.17
Liverpool and London and Globe.....	155,014,746	1,617,749	1.04	1,320,340	718,867	54.45

## FINANCE.

## 59.—Fire Insurance Business transacted in Canada, 1916—con.

Companies.	Gross Amount of Policies new and renewed.	Premiums charged thereon.	Rate of pre- miums per cent of risks.	Net cash received for Premiums.	Net cash paid for Losses.	Per- cent- age of losses paid to pre- miums re- cei- ved.
	\$	\$	p.c.	\$	\$	p.c.
British Companies— con.						
London Guarantee and Accident.....	14,230,618	116,392	0.82	54,534	11,956	21.92
London and Lanca- shire Fire.....	89,037,938	873,427	0.98	716,846	356,933	49.79
London Assurance....	33,317,443	359,877	1.08	310,808	131,239	42.23
North British and Mercantile.....	117,038,418	1,095,834	0.94	920,026	497,670	54.09
Northern Assurance Co	72,651,285	875,461	1.21	761,895	571,654	75.03
Norwich Union Fire..	72,796,741	844,115	1.16	787,655	431,288	54.76
Ocean Accident and Guarantee.....	18,637,201	203,959	1.09	138,259	65,087	47.08
Palatine Insurance Co.	32,327,506	372,369	1.15	276,444	199,057	72.01
Phoenix, of London...	101,711,370	1,246,536	1.23	964,766	430,961	44.67
Provincial.....	6,439,376	47,394	0.74	36,953	18,029	48.79
Royal Exchange.....	48,659,559	510,372	1.05	442,054	202,859	45.89
Royal Insurance Co...	162,489,584	1,747,015	1.08	1,471,655	739,389	50.24
Scottish Union and National.....	45,342,889	467,584	1.03	403,579	203,345	50.39
Sun Insurance Office..	56,933,231	625,014	1.10	533,836	305,232	57.18
Union Assurance Socie- ty.....	59,055,853	636,224	1.08	494,239	324,375	65.63
Yorkshire.....	43,327,155	496,585	1.15	403,678	208,856	51.74
Totals .....	1,606,346,835	17,278,034	1.08	14,294,801	7,926,461	55.45
American and Other Companies.						
Ætna Insurance Co...	35,158,368	399,094	1.14	336,180	154,964	46.10
Americal Central.....	22,726,001	189,390	0.83	76,258	51,021	66.91
American Insurance Co.....	3,372,197	50,257	1.49	46,993	9,745	20.74
American Lloyds.....	8,437,918	30,636	0.36	22,540	5,162	22.90
California Insurance Co.....	3,385,852	52,188	1.54	40,090	22,724	56.68
Connecticut Fire.....	17,632,269	206,640	1.17	140,594	75,504	53.70
Continental Insurance Co.....	43,819,412	435,550	0.99	317,380	138,224	43.55
Equitable Fire and Marine.....	16,073,373	174,319	1.08	43,490	21,224	48.80
Fidelity-Phoenix.....	41,800,540	455,449	1.09	345,203	170,811	49.48
Fireman's Fund.....	16,478,630	160,474	0.97	127,870	50,481	39.48
Firemen's Insurance Co.....	7,055,482	91,454	1.30	74,766	29,729	39.67

## INSURANCE.

## 59.—Fire Insurance Business transacted in Canada, 1916—concluded.

Companies.	Gross amount of policies new and renewed.	Premiums charged thereon.	Rate of premiums per cent. of risks.	Net cash received for premiums.	Net cash paid for losses.	Percentage of losses paid to premiums received.
	\$	\$	p.c.	\$	\$	p.c.
American and Other Companies—con.						
General Fire Insurance Co. of Paris.....	8,353,555	97,373	1.17	69,575	70,785	101.74
German American.....	57,656,659	451,831	0.78	347,801	218,112	62.71
Glens Falls.....	15,386,334	181,329	1.18	149,497	93,811	62.75
Globe and Rutgers....	53,090,487	522,226	0.98	404,607	231,851	57.30
Hartford Fire.....	112,177,889	1,088,069	0.97	1,012,400	444,513	43.91
Home Insurance Co....	99,494,937	1,036,695	1.04	898,665	428,152	47.64
Insurance Co. of North America.....	52,502,707	521,765	0.99	431,406	197,638	45.81
Insurance Co. of State of Pa.....	15,037,457	171,371	1.14	96,061	61,158	63.67
Millers National.....	6,016,248	63,237	1.05	37,663	13,682	36.33
National-Ben Franklin.....	9,534,439	110,156	1.16	86,977	38,586	44.36
National Fire of Hartford.....	54,229,351	618,019	1.14	500,103	251,861	50.36
National Union Fire of Pittsburgh.....	23,027,348	269,141	1.17	206,869	130,583	63.12
La Nationale Compagnie d'Ass.....	17,431,064	210,653	1.21	152,093	86,606	56.94
Niagara Fire.....	17,558,707	202,018	1.15	137,959	100,776	73.05
Northwestern National.....	14,541,757	172,072	1.18	129,435	59,404	45.89
Phenix Compagnie Francaise.....	7,029,090	78,378	1.12	66,597	31,061	46.64
Phoenix of Hartford....	50,663,224	544,999	1.08	365,244	193,557	52.99
Providence Washington.....	19,457,829	218,903	1.13	179,955	119,694	66.51
Queen of America.....	62,709,008	757,757	1.21	614,935	334,706	54.43
St. Paul Fire and Marine.....	38,391,355	422,287	1.10	330,644	200,360	60.60
Springfield Fire and Marine.....	70,569,473	568,358	0.81	465,582	306,782	65.89
Stuyvesant.....	9,215,645	106,998	1.16	40,497	39,388	97.26
L'Union, Paris, France.....	20,241,119	240,819	1.19	193,428	121,039	62.58
Westchester Fire.....	18,850,202	246,137	1.31	181,816	85,402	46.97
<b>Totals.....</b>	<b>1,069,085,926</b>	<b>11,146,042</b>	<b>1.04</b>	<b>8,671,173</b>	<b>4,589,096</b>	<b>52.92</b>
Canadian Companies.....	742,805,919	8,807,615	1.19	4,817,876	2,595,576	53.87
British Companies.....	1,606,346,835	17,278,034	1.08	14,294,801	7,926,461	55.45
American and other Companies.....	1,069,085,926	11,146,042	1.04	8,671,173	4,589,096	52.92
<b>Grand Total.....</b>	<b>3,418,238,680</b>	<b>37,231,691</b>	<b>1.05</b>	<b>27,783,850</b>	<b>15,111,133</b>	<b>54.39</b>



## FINANCE.

60.—Amounts received for Fire Insurance Premiums and paid for Losses, with percentage of Losses to Premiums, 1869-1916.

Year.	Premiums received.	Losses paid.	Percent- age of losses to pre- miums.	Year.	Premiums received.	Losses paid.	Percent- age of losses to pre- miums.
	\$	\$	p.c.		\$	\$	p.c.
1869...	1,785,539	1,027,720	57.56	1893...	6,793,595	5,052,690	74.37
1870...	1,916,779	1,624,837	84.77	1894...	6,711,369	4,589,363	68.38
1871...	2,321,716	1,549,199	66.72	1895...	6,943,382	4,993,750	71.92
1872...	2,628,710	1,909,975	72.66	1896...	7,075,850	4,173,501	58.98
1873...	2,968,416	1,682,184	55.67	1897...	7,157,661	4,701,833	65.69
1874...	3,522,303	1,926,159	54.68	1898...	7,350,131	4,784,487	65.09
1875...	3,594,764	2,563,531	71.31	1899...	7,910,492	5,182,038	65.51
1876...	3,708,006	2,867,295	77.33	1900...	8,331,948	7,774,293	93.31
1877...	3,764,005	8,490,919	225.58	1901...	9,650,348	6,774,956	70.20
1878...	3,368,430	1,822,764	54.11	1902...	10,577,984	4,152,289	39.26
1879...	3,227,488	2,145,198	66.47	1903...	11,384,762	5,870,716	51.57
1880...	3,479,577	1,666,578	47.90	1904...	13,169,882	14,099,534	107.06
1881...	3,827,116	3,169,824	82.83	1905...	14,285,671	6,000,519	42.00
1882...	4,229,706	2,664,986	63.01	1906...	14,687,963	6,584,291	44.83
1883...	4,624,741	2,920,228	63.14	1907...	16,114,475	8,445,041	52.41
1884...	4,980,128	3,245,323	65.16	1908...	17,027,275	10,279,455	60.37
1885...	4,852,460	2,679,287	55.22	1909...	17,049,464	8,646,826	50.72
1886...	4,932,335	3,301,388	66.93	1910...	18,725,531	10,292,393	54.96
1887...	5,244,502	3,403,514	64.90	1911...	20,575,255	10,936,947	53.16
1888...	5,437,263	3,073,822	56.53	1912...	23,194,518	12,119,581	52.25
1889...	5,588,016	2,876,211	51.47	1913...	25,745,947	14,003,759	54.39
1890...	5,836,071	3,266,567	55.97	1914...	27,499,158	15,347,284	55.75
1891...	6,168,716	3,905,697	63.31	1915...	26,474,833	14,161,949	53.49
1892...	6,512,327	4,377,270	67.22	1916...	27,783,852	15,111,133	54.39
Total..					450,739,560	272,241,945	60.40

61.—Totals of Fire Insurance Premiums received and Losses paid, with percentage of Losses to Premiums by Nationality of Companies, 1869-1916.

Companies.	Premiums received.	Losses paid.	Percentage of losses to Premiums.
	\$	\$	p.c.
Canadian companies.....	96,048,484	59,795,734	62.26
British companies.....	267,308,107	163,371,003	61.12
American and other companies.....	87,382,969	49,075,208	56.16
Total.....	450,739,560	272,241,945	60.40

## INSURANCE.

62.—Fire Insurance Premiums received and Losses paid by Canadian Companies doing business in Canada and other Countries, with percentage of Losses paid to Premiums received, 1878-1916.

Year.	Business in Canada.			Business in other Countries.		
	Premiums received.	Losses paid.	Percentage of losses paid to premiums received.	Premiums received.	Losses paid.	Percentage of losses paid to premiums received.
	\$	\$	p.c.	\$	\$	p.c.
1878.....	591,495	241,545	40.84	1,251,923	737,430	58.90
1880.....	459,653	219,954	47.85	1,377,310	885,293	64.28
1885.....	983,555	518,633	52.73	1,485,078	1,051,090	70.78
1890.....	1,018,226	604,846	59.40	1,584,879	910,511	57.45
1895.....	785,416	499,472	63.59	2,566,980	1,462,849	56.99
1900.....	689,956	658,405	95.43	2,804,896	1,969,862	70.23
1905.....	2,611,899	1,277,772	48.92	3,911,739	2,307,655	58.99
1910.....	3,037,675	1,754,359	57.75	3,141,709	1,714,812	54.58
1911.....	3,204,241	1,755,348	54.78	3,343,157	2,149,515	64.30
1912.....	3,133,661	1,662,120	53.04	3,467,975	2,039,201	58.80
1913.....	3,285,887	1,978,284	60.26	2,856,233	1,829,175	56.56
1914.....	2,989,211	1,797,561	60.13	3,129,204	2,112,379	67.51
1915.....	2,938,210	1,668,798	56.80	3,011,851	1,750,132	58.11
1916.....	3,038,964	1,475,316	48.55	2,799,871	1,632,886	58.32

63.—Amount of Fire Insurance at risk in Canada, 1869-1916.

Year.	Amount at risk.	Year.	Amount at risk.	Year.	Amount at risk.	Year.	Amount at risk.
	\$		\$		\$		\$
1869..	188,359,809	1881..	462,210,968	1893..	814,687,057	1905..	1,318,146,495
1870..	191,549,586	1882..	526,856,478	1894..	836,067,202	1906..	1,443,902,244
1871..	228,453,784	1883..	572,264,041	1895..	837,872,864	1907..	1,614,703,536
1872..	251,722,940	1884..	605,507,789	1896..	845,574,352	1908..	1,700,708,263
1873..	278,754,835	1885..	611,794,479	1897..	868,522,217	1909..	1,863,276,504
1874..	306,844,219	1886..	586,773,022	1898..	895,394,107	1910..	2,034,276,740
1875..	364,421,029	1887..	634,767,337	1899..	936,869,668	1911..	2,279,868,346
1876..	404,608,180	1888..	650,735,059	1900..	992,332,360	1912..	2,684,355,895
1877..	420,342,681	1889..	684,538,378	1901..	1,038,687,619	1913..	3,151,930,389
1878..	409,899,701	1890..	720,679,621	1902..	1,075,263,168	1914..	3,456,019,009
1879..	407,357,985	1891..	759,602,191	1903..	1,140,453,716	1915..	3,531,620,802
1880..	411,563,271	1892..	821,410,072	1904..	1,215,013,931	1916..	3,720,058,226

## FINANCE.

64.—Assets of Canadian Companies doing Fire Insurance, or Fire Insurance and other classes of Insurance, and Assets in Canada of Companies other than Canadian transacting such business in Canada, 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Canadian Companies—					
Real estate.....	739,621	890,805	956,169	947,229	1,295,400
Loans on real estate....	2,159,311	3,041,389	3,169,250	3,319,848	3,343,750
Stocks, bonds and debentures.....	9,614,883	9,376,392	9,024,937	9,793,226	10,785,277
Agents' balances and premiums outstanding....	1,670,990	1,893,507	2,043,406	2,567,121	2,718,065
Cash on hand and in banks	1,735,522	1,737,687	1,656,436	2,162,128	2,271,752
Interest and rents.....	139,267	159,258	205,657	290,747	292,548
Other assets.....	892,146	681,761	445,324	354,109	471,452
<b>Total assets .....</b>	<b>16,951,740</b>	<b>17,780,799</b>	<b>17,501,179</b>	<b>19,434,408</b>	<b>21,178,244</b>
British Companies—					
Real estate.....	2,420,600	2,589,350	2,837,100	2,371,456	2,361,921
Loans on real estate....	17,406,247	12,673,949	14,695,586	5,471,761	5,321,817
Stocks, bonds and debentures.....	13,809,237	11,683,102	13,720,258	14,778,620	15,487,919
Agents' balances and premiums outstanding....	1,362,148	1,583,009	1,722,732	2,122,057	2,275,667
Cash on hand and in banks	1,568,817	1,509,870	2,162,506	2,265,547	2,848,486
Interest and rents.....	505,182	421,358	548,115	186,550	205,650
Other assets in Canada..	350,199	156,585	165,781	164,763	219,340
<b>Total assets in Canada..</b>	<b>37,422,430</b>	<b>30,617,223</b>	<b>35,852,078</b>	<b>27,360,754</b>	<b>28,720,800</b>
American Companies—					
Real estate.....	—	—	—	—	none.
Loans on real estate....	—	—	8,500	—	none.
Stocks, bonds and debentures.....	5,650,445	6,840,822	8,487,566	8,304,971	9,285,183
Agents' balances and premiums outstanding....	719,336	1,264,185	1,400,871	1,406,320	1,485,304
Cash on hand and in banks	292,554	221,340	449,000	870,233	1,196,765
Interest and rents.....	52,755	67,767	95,457	111,582	124,360
Other assets.....	23,099	27,646	26,028	55,951	42,167
<b>Total assets in Canada..</b>	<b>6,738,189</b>	<b>8,421,760</b>	<b>10,467,422</b>	<b>10,749,057</b>	<b>12,133,779</b>
All Companies—					
Real estate.....	3,160,221	3,480,155	3,793,269	3,318,685	3,657,321
Loans on real estate....	19,565,558	15,715,338	17,873,336	8,791,609	8,665,567
Stocks, bonds and debentures.....	29,074,565	27,900,316	31,232,761	32,876,817	35,558,379
Agents' balances and premiums outstanding....	3,752,474	4,740,701	5,167,009	6,095,498	6,479,036
Cash on hand and in banks	3,596,893	3,468,897	4,267,942	5,297,908	6,317,003
Interest and rents.....	697,204	648,383	849,229	588,879	622,558
Other assets.....	1,265,444	865,992	637,133	574,823	732,959
<b>Total assets in Canada..</b>	<b>61,112,359</b>	<b>56,819,782</b>	<b>63,820,679</b>	<b>57,544,219</b>	<b>62,032,823</b>

## INSURANCE.

## 65.—Liabilities of Canadian Companies doing Fire Insurance, or Fire Insurance and other classes of Insurance, and Liabilities in Canada of Companies other than Canadian transacting such business in Canada, 1912-16.

Schedule.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Canadian Companies—					
Unsettled losses.....	830,395	858,066	951,039	1,004,123	1,832,805
Reserve of unearned premiums.....	5,766,579	5,980,877	5,907,016	5,895,740	5,960,745
Sundry items.....	984,575	1,274,755	1,147,752	1,509,362	1,783,253
<b>Total liabilities, not including capital.....</b>	<b>7,581,549</b>	<b>8,113,698</b>	<b>8,005,807</b>	<b>8,409,225</b>	<b>9,576,803</b>
Excess of assets over liabilities, excluding capital.....	9,370,191	9,667,101	9,495,372	11,025,183	11,601,441
Capital stock paid up....	9,145,607	9,825,459	9,327,546	9,705,234	9,706,336
British Companies—					
Unsettled losses.....	445,081	703,556	878,988	733,158	1,976,475
Reserve of unearned premiums.....	7,340,187	8,017,926	8,488,770	8,681,721	9,699,494
Sundry items <sup>1</sup> .....	2,108,703	1,155,394	962,328	1,520,477	417,151
<b>Total liabilities in Canada</b>	<b>9,893,971</b>	<b>9,876,876</b>	<b>10,330,086</b>	<b>10,935,356</b>	<b>12,093,120</b>
Excess of assets over liabilities, excluding capital.....	27,528,459	20,740,347	25,521,991	16,425,398	16,627,680
Capital stock paid up....	—	—	—	—	—
American Companies—					
Unsettled losses.....	362,979	595,864	858,806	699,776	1,166,977
Reserve of unearned premiums.....	3,283,827	4,388,977	4,888,828	4,767,935	5,129,402
Sundry items <sup>1</sup> .....	224,533	291,582	310,379	336,998	262,587
<b>Total liabilities in Canada</b>	<b>3,871,339</b>	<b>5,276,423</b>	<b>6,058,013</b>	<b>5,804,709</b>	<b>6,558,966</b>
Excess of assets over liabilities excluding capital.....	2,866,850	3,145,338	4,409,409	4,944,348	5,574,813
Capital stock paid up....	—	—	—	—	—
All Companies—					
Unsettled losses.....	1,638,455	2,157,486	2,688,833	2,437,057	4,976,257
Reserve of unearned premiums.....	16,390,593	18,387,780	19,284,614	19,345,396	20,789,641
Sundry items <sup>1</sup> .....	3,317,811	2,721,731	2,420,459	3,366,837	2,462,991
<b>Total liabilities in Canada not including capital....</b>	<b>21,346,859</b>	<b>23,266,997</b>	<b>24,393,906</b>	<b>25,149,290</b>	<b>28,228,889</b>
Excess of assets over liabilities excluding capital.....	39,765,500	33,552,786	39,426,772	32,394,929	33,803,974
Capital stock paid up <sup>2</sup> ...	9,145,607	9,825,459	9,327,546	9,705,234	9,706,336

<sup>1</sup>Liabilities under life and other branches included.<sup>2</sup>Canadian companies only.



## FINANCE.

66.—Cash Income and Expenditure of Canadian Companies doing Fire Insurance, or Fire Insurance and other classes of Insurance and Cash Income and Expenditure in Canada of Companies other than Canadian transacting such business in Canada, 1912-16.

Schedule.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
<b>INCOME.</b>					
Canadian Companies—					
Net cash for premiums...	9,644,235	9,167,900	9,122,882	10,008,557	11,146,958
Interest and dividends on stocks, etc.....	568,329	653,599	640,459	672,406	739,599
Sundry items.....	185,991	176,642	15,257	59,795	78,632
<b>Total cash income.....</b>	<b>10,398,555</b>	<b>9,998,141</b>	<b>9,778,598</b>	<b>10,740,758</b>	<b>11,965,189</b>
British Companies <sup>1</sup> —					
Net cash for premiums...	12,092,125	13,138,597	13,710,908	13,609,363	14,294,801
Interest and dividends on stocks, etc.....	1,483,672	1,298,719	1,370,943	911,348	952,690
From branches other than Fire or Life.....	1,072,425	1,367,100	1,381,397	2,217,868	2,239,324
Sundry items.....	122,163	2,660	456	4,659	1,557
<b>Total cash income.....</b>	<b>14,770,385</b>	<b>15,807,076</b>	<b>16,463,704</b>	<b>16,743,238</b>	<b>17,488,372</b>
American Companies <sup>1</sup> —					
Net cash for premiums...	6,038,987	7,508,050	8,771,599	8,306,395	8,671,173
Interest and dividends on stocks, etc.....	191,585	254,252	339,690	398,696	445,970
From branches other than Fire or Life.....	312,008	414,616	595,104	978,343	1,551,295
Sundry items.....	4,381	754	28,067	None	None
<b>Total cash income.....</b>	<b>6,546,961</b>	<b>8,177,672</b>	<b>9,734,460</b>	<b>9,683,434</b>	<b>10,668,438</b>
<b>EXPENDITURE.</b>					
Canadian Companies—					
Paid for losses.....	5,552,013	5,786,981	5,729,043	5,947,654	6,560,438
General expenses.....	3,907,665	3,676,507	3,639,927	3,701,268	4,040,280
Dividends or bonus to shareholders.....	447,537	481,900	329,588	510,429	438,319
<b>Total cash expenditure...</b>	<b>9,907,215</b>	<b>9,945,388</b>	<b>9,698,558</b>	<b>10,159,351</b>	<b>11,039,037</b>
Excess of income over expenditure.....	491,340	52,753	80,040	581,407	926,152
British Companies <sup>1</sup> —					
Paid for losses.....	6,319,064	6,939,453	7,796,482	6,889,360	7,026,461
General expenses.....	3,764,912	4,146,973	4,356,332	4,503,221	4,812,638
On account of branches other than Fire or Life.	932,822	1,174,587	1,218,800	2,179,610	1,968,887
<b>Total cash expenditure...</b>	<b>11,016,798</b>	<b>12,261,013</b>	<b>13,371,614</b>	<b>13,572,191</b>	<b>14,707,986</b>

<sup>1</sup>Income and Expenditure in Canada.

## INSURANCE.

66.—Cash Income and Expenditure of Canadian Companies doing Fire Insurance, or Fire Insurance and other classes of Insurance and Cash Income and Expenditure in Canada of Companies other than Canadian transacting such business in Canada, 1912-16—concluded.

Schedule.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
EXPENDITURE—CON.					
Excess of income over expenditure.....	3,753,587	3,546,063	3,092,090	3,171,047	2,780,386
American Companies <sup>1</sup> —					
Paid for losses.....	3,068,757	4,043,757	4,578,500	4,646,722	4,589,096
General expenses.....	1,691,584	2,235,516	2,551,307	2,578,842	3,004,448
On account of branches other than Fire or Life.	198,160	272,771	434,380	761,589	1,821,147
Total cash expenditure...	4,958,501	6,552,044	7,564,187	7,987,153	9,414,691
Excess of income over expenditure.....	1,588,460	1,625,628	2,170,273	1,696,281	1,253,747

<sup>1</sup>Income and expenditure in Canada.

67.—Amount of Net Premiums written and Net Losses incurred by Provinces in Canada, by Canadian, British and American and other Companies transacting Fire Insurance, 1916.

(Licensed re-insurance deducted).

Provinces.	Canadian.		British.		United States and other.	
	Pre-miums.	Losses.	Pre-miums.	Losses.	Pre-miums.	Losses.
	\$	\$	\$	\$	\$	\$
P.E. Island.....	19,783	41,700	65,655	141,363	32,627	65,023
Nova Scotia.....	220,855	136,712	463,960	232,052	561,916	256,628
New Brunswick.....	230,501	129,149	611,261	387,831	441,913	259,680
Quebec.....	1,339,572	612,423	3,898,655	1,983,907	1,752,922	842,009
Ontario.....	2,144,933	1,701,547	5,029,042	3,847,124	2,561,161	2,002,049
Manitoba.....	645,907	290,941	1,060,488	615,404	928,999	466,404
Saskatchewan.....	563,288	256,598	953,326	346,267	732,326	290,491
Alberta.....	457,879	228,660	903,483	407,072	726,456	364,334
British Columbia.....	519,507	236,967	1,430,480	651,653	935,676	426,245
Yukon.....	97	None.	850	None.	1,637	None.
Total.....	6,142,428	3,634,695	14,417,197	8,612,673	8,705,633	4,972,863

## FINANCE.

## 68.—Life Insurance in Canada, 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916. <sup>1</sup>
<b>Canadian Companies—</b>					
Policies new and taken up.....NO.	205,316	100,967	108,844	109,118	120,759
Policies in force at end of year. "	663,870	553,372	587,887	620,559	676,998
Policies become claims....."	9,409	7,870	8,248	9,213	9,909
Amount of policies new and taken up.....\$	141,267,596	131,493,582	125,505,324	121,033,310	138,201,281
Net amount of policies in force "	706,656,117	750,637,902	794,520,423	829,972,809	898,151,418
Net amount of policies become claims....."	7,760,842	7,613,365	9,009,944	10,383,062	11,763,148
Amount of premiums in year...."	23,540,081	24,784,163	26,047,253	28,546,303	30,445,735
Claims paid <sup>2</sup> ...."	7,550,533	7,640,225	8,455,729	9,914,932	10,514,258
Unsettled claims—					
Not resisted...."	1,012,805	877,327	1,135,185	1,329,424	2,333,180
Resisted....."	48,133	8,000	110,362	109,000	114,972
<b>British Companies—</b>					
Policies new and taken up.....NO.	2,522	4,448	11,603	7,690	6,920
Policies in force at end of year. "	24,922	27,522	30,925	31,383	23,147 <sup>3</sup>
Policies become claims....."	622	666	652	802	405 <sup>3</sup>
Amount of policies new and taken up.....\$	7,319,952	6,950,695	9,294,590	5,727,313	5,295,133
Net amount of policies in force "	54,537,725	58,176,795	60,770,658	58,087,018	36,815,604 <sup>3</sup>
Net amount of policies become claims....."	1,395,028	1,472,815	1,516,885	1,773,592	860,152 <sup>3</sup>
Amount of premiums in year...."	1,768,046	1,905,486	1,906,998	2,071,592	1,898,659
Claims paid <sup>2</sup> ...."	1,333,955	1,526,803	1,385,909	1,712,889	1,693,628
Unsettled claims—					
Not resisted...."	217,139	175,118	310,217	324,261	393,530
Resisted....."	none.	none.	none.	50,500	50,594

<sup>1</sup> Figures subject to revision. <sup>2</sup> Including matured endowments. <sup>3</sup> Incomplete, certain figures not received in time for insertion in Insurance Report.

## INSURANCE.

## 68.—Life Insurance in Canada 1912-1916—concluded.

Schedule.	1912.	1913.	1914.	1915.	1916 <sup>1</sup> .
<b>American Companies</b>					
Policies new and taken up.....NO	243,583	408,676	323,606	365,788	330,008
Policies in force at end of year. "	808,605	1,055,088	1,157,943	1,297,010	1,474,455
Policies become claims....."	7,982	9,853	10,843	13,168	16,708
Amount of policies new and taken up.....\$	70,617,555	93,164,269	82,206,602	94,358,935	87,649,711
Net amount of policies in force "	309,114,827	359,775,330	386,869,397	423,556,850	467,499,266
Net amount of policies become claims....."	3,877,009	4,216,778	4,677,481	5,403,510	6,695,184
Amount of premiums in year...."	10,401,389	11,951,557	13,139,844	14,488,783	15,893,099
Claims paid <sup>2</sup> ...."	3,866,840	4,849,751	4,409,764	5,542,199	6,488,908
<b>Unsettled claims—</b>					
Not resisted..."	339,273	281,655	613,031	475,751	656,138
Resisted....."	22,200	21,480	24,707	125,790	122,597
<b>All Companies—</b>					
Policies new and taken up.....NO.	451,421	514,091	444,053	482,596	457,687
Policies in force at end of year. "	1,487,397	1,635,982	1,776,755	1,948,952	2,174,600 <sup>3</sup>
Policies become claims....."	18,073	18,389	19,743	23,183	27,022 <sup>3</sup>
Amount of policies new and taken up.....\$	219,205,103	231,608,546	217,006,516	221,119,558	231,146,125
Net amount of policies in force "	1,070,308,669	1,168,590,027	1,242,160,478	1,311,616,677	1,402,466,288 <sup>3</sup>
Net amount of policies become claims....."	13,032,879	13,302,958	15,204,310	17,560,164	19,318,484 <sup>3</sup>
Amount of premiums in year...."	35,709,516	38,641,206	41,094,095	45,106,678	48,237,493
Claims paid <sup>2</sup> ...."	12,751,328	13,516,779	14,251,402	17,170,020	18,696,794
<b>Unsettled claims—</b>					
Not resisted..."	1,629,217	1,334,100	2,058,4 <sup>3</sup>	2,129,433	3,382,848
Resisted... .."	70,333	29,480	135,069	285,290	288,163

<sup>1</sup>Figures subject to revision.<sup>2</sup>Including matured endowments.<sup>3</sup>Incomplete.



## FINANCE.

## 69.—Insurance Death-rate in Canada, 1912-1915.

Companies.	1912.			1913.		
	Number of lives exposed to risk.	Number of deaths.	Death-rate per 1,000.	Number of lives exposed to risk.	Number of deaths.	Death-rate per 1,000.
Active Companies, * ordinary.....	547,015	4,365	7.980	595,842	4,374	7.341
Active companies, industrial.....	867,603	8,677	10.001	974,350	9,048	9.286
Assessment and fraternal societies.....	139,781	1,380	9.873	138,842	1,339	9.644
Non-active and retired companies.....	3,465	123	35.498	3,384	123	36.342
<b>Total.....</b>	<b>1,557,864</b>	<b>14,545</b>	<b>9.337</b>	<b>1,712,418</b>	<b>14,884</b>	<b>8.692</b>
	1914.			1915.		
	Number of lives exposed to risk.	Number of deaths.	Death-rate per 1,000.	Number of lives exposed to risk.	Number of deaths.	Death-rate per 1,000.
Active Companies, ordinary.....	637,686	4,800	7.527	682,070	5,708	8.368
Active companies, industrial.....	1,070,637	9,497	8.870	1,185,923	10,369	8.743
Assessment and fraternal societies.....	126,062	1,377	10.923	109,050	1,308	11.994
Non-active and retired companies.....	3,217	99	30.774	2,950	122	41.356
<b>Total.....</b>	<b>1,837,602</b>	<b>15,773</b>	<b>8.583</b>	<b>1,979,993</b>	<b>17,507</b>	<b>8.842</b>

NOTE.—Average death-rate for all companies in the fifteen years 1901-1915, 9.637 per 1,000.

## 70.—Assets of Canadian Life Companies and Assets in Canada of Life Companies other than Canadian Companies, 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916. <sup>1</sup>
Canadian Companies—	\$	\$	\$	\$	\$
Real estate.....	9,031,457	11,510,386	12,773,617	14,096,206	14,308,118
Loans on real estate.	75,248,268	87,215,996	94,765,472	96,058,936	95,916,630
Loans on collaterals.	2,889,833	1,477,725	2,132,153	1,696,754	2,501,710
Cash loans and premium obligations on policies in force	25,879,863	30,875,309	36,204,417	39,303,673	41,311,569
Stocks, bonds and debentures.....	86,036,806	87,754,400	94,881,911	104,357,271	126,398,386
Interest and rent due and accrued..	4,037,421	4,798,603	5,839,838	6,724,460	7,190,936
Cash on hand and in banks.....	2,895,719	3,365,373	4,163,749	5,159,429 <sup>2</sup>	3,680,359 <sup>2</sup>
Outstanding and deferred premiums..	5,322,814	6,025,257	6,776,990	6,562,725	6,635,347
Other assets.....	290,694	221,446	288,791	283,980	304,325
<b>Total assets.....</b>	<b>211,632,875</b>	<b>233,244,495</b>	<b>257,826,938</b>	<b>274,243,434</b>	<b>293,247,338</b>

<sup>1</sup>Figures subject to revision.<sup>2</sup>Includes cash deposits with Government.

## INSURANCE.

70.—Assets of Canadian Life Companies and Assets in Canada of Life Companies other than Canadian Companies, 1912-1916—concluded.

Schedule.	1912.	1913.	1914.	1915.	1916. <sup>1</sup>
British Companies—	\$	\$	\$	\$	\$
Real estate.....	911,034	917,860	919,588	961,214	968,794
Loans on real estate.	12,410,674	17,937,890	18,420,270	17,834,771	16,902,175
Loans on collaterals.	141,500	139,568	139,069	155,193	169,296
Cash loans and premium obligations on policies in force	1,965,671	2,373,212	2,556,680	2,713,804	2,655,569
Stocks, bonds and debentures.....	16,361,169	15,103,739	15,272,005	14,675,860	15,999,544
Interest and rent due and accrued..	238,153	300,336	370,350	407,409	432,307
Cash on hand and in banks.....	352,135	435,258	854,670	702,430	787,354
Outstanding and deferred premiums..	280,122	364,125	381,148	347,661	344,215
Other assets.....	30,740	13,797	10,598	10,224	18,367
<b>Total assets in Canada.....</b>	<b>32,691,198</b>	<b>37,585,785</b>	<b>38,924,378</b>	<b>37,808,566</b>	<b>38,277,621</b>
American Companies—					
Real estate.....	58,683	177,228	70,765	72,559	79,840
Loans on real estate.	5,778,313	11,417,124	9,173,058	11,973,851	11,037,153
Loans on collaterals.	none.	none.	none.	none.	none.
Cash loans and premium obligations on policies in force.	6,973,367	8,742,100	10,012,133	10,850,791	10,777,910
Stocks, bonds and debentures.....	45,955,544	46,685,135	50,777,774	49,721,360	55,146,516
Interest and rent due and accrued..	769,570	931,390	1,030,904	1,152,562	1,151,210
Cash on hand and in banks.....	442,426	653,675	763,901	2,408,289	2,537,267
Outstanding and deferred premiums..	964,842	1,139,772	1,238,849	1,287,225	1,352,317
Other assets.....	124	20	1,222	1,874	9,846
<b>Total assets in Canada.....</b>	<b>60,942,869</b>	<b>69,746,444</b>	<b>73,068,606</b>	<b>77,468,511</b>	<b>82,142,059</b>

<sup>1</sup> Figures subject to revision.<sup>2</sup> Includes cash deposits with Government.

NOTE.—Certain British companies transacting fire insurance in Canada transact also life insurance in Canada, and inasmuch as a separation of assets has not been made between these two classes, their assets in Canada are not here included, but are included in the assets of British companies shown in Table 64 on page 58.

## FINANCE.

## 71.—Liabilities of Canadian Life Companies and Liabilities in Canada of Life Companies other than Canadian Companies, 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916. <sup>1</sup>
Canadian Companies—	\$	\$	\$	\$	\$
Unsettled claims...	1,608,795	1,501,526	2,132,846	2,382,635	3,676,158
Net re-insurance re- serve.....	179,244,051	196,698,301	213,606,163	227,562,062	246,493,986
Sundry liabilities ..	3,529,836	3,715,340	7,244,806	7,571,712	8,462,277
<b>Total liabilities not including capital.</b>	<b>184,382,682</b>	<b>201,944,867</b>	<b>222,983,815</b>	<b>237,516,409</b>	<b>258,632,421</b>
Surplus of assets ex- cluding capital....	27,250,193	31,299,628	34,843,123	36,727,025	39,614,962
Capital stock paid up.....	5,919,306	5,409,233	5,462,314	5,582,019	5,679,618
British companies <sup>2</sup> —					
Unsettled claims...	217,139	175,118	310,217	374,761	444,123
Net re-insurance re- serve.....	17,899,146	18,080,566	18,498,011	18,760,831	19,014,344
Sundry liabilities...	274,365	118,047	133,782	209,972	69,362
<b>Total liabilities not including capital.</b>	<b>18,390,650</b>	<b>18,373,731</b>	<b>18,942,010</b>	<b>19,345,564</b>	<b>19,527,829</b>
Surplus of assets....	14,300,548	19,212,054	19,982,368 <sup>3</sup>	18,463,002 <sup>3</sup>	18,749,792
American companies <sup>2</sup> —					
Unsettled claims...	421,473	303,134	637,737	601,540	778,735
Net re-insurance re- serve.....	54,869,557	60,596,643	65,020,583	69,124,299	74,997,533
Sundry liabilities...	1,009,838	1,240,377	1,368,261	1,687,867	1,988,928
<b>Total liabilities not including capital..</b>	<b>56,300,868</b>	<b>62,140,154</b>	<b>67,026,581</b>	<b>71,413,706</b>	<b>77,765,196</b>
Surplus of assets....	4,642,001	7,606,290	6,042,025	6,054,805	4,376,863
All companies—					
Unsettled claims...	2,247,407	1,979,778	3,080,800	3,358,936	4,899,016
Net re-insurance re- serve.....	252,012,754	275,375,510	297,124,757	315,447,192	340,505,863
Sundry liabilities...	4,814,039	5,103,464	8,746,849	9,469,552	10,520,567
<b>Total liabilities not including capital..</b>	<b>259,074,200</b>	<b>282,458,752</b>	<b>308,952,406</b>	<b>328,275,680</b>	<b>355,925,446</b>
Surplus of assets ex- cluding capital....	46,192,742	58,117,972	60,867,516	61,244,831	62,741,617
Capital stock paid up <sup>4</sup> .....	5,919,306	5,409,233	5,462,314	5,582,019	5,679,618

<sup>1</sup>Figures subject to revision.<sup>2</sup>Liabilities in Canada.<sup>3</sup>Incomplete.<sup>4</sup>Canadian companies only.

## INSURANCE.

72.—Cash Income and Expenditure of Canadian Life Companies and Cash Income and Expenditure in Canada of Life Companies other than Canadian Companies, 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916 <sup>1</sup> .
<b>INCOME.</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Canadian companies—					
Net premium income	31,488,787	33,728,176	35,273,895	38,492,314	41,781,806
Consideration for annuities.....	2,923,426	3,810,677	3,523,477	1,699,598	2,332,401
Interest and dividends on stocks, etc.....	10,393,491	12,219,117	13,561,140	14,512,703	16,006,695
Sundry items.....	918,918	237,932	408,118	133,224	301,405
<b>Total cash income...</b>	<b>45,724,622</b>	<b>49,995,902</b>	<b>52,766,630</b>	<b>54,837,839</b>	<b>60,416,307</b>
British companies—					
Net premium income	1,766,593	1,904,486	1,906,690	2,071,284	1,898,602
Consideration for annuities.....	1,451	1,000	307	307	158
Interest and dividends on stocks, etc.....	1,441,172	1,757,322	1,903,351	1,933,401	1,889,698
Sundry items.....	32,496	6,028	6,514	2,197	712
<b>Total cash income<sup>2</sup>..</b>	<b>3,241,712</b>	<b>3,668,836</b>	<b>3,816,862</b>	<b>4,007,189</b>	<b>3,789,170</b>
American companies—					
Net premium income	10,338,012	11,815,933	13,118,951	14,476,565	15,830,132
Consideration for annuities.....	63,378	135,627	20,892	12,217	62,968
Interest and dividends on stocks, etc.....	2,278,745	2,746,319	3,301,999	3,633,145	3,903,293
Sundry items.....	76,835	429,036	33,640	15,237	46,331
<b>Total cash income<sup>2</sup>..</b>	<b>12,756,970</b>	<b>15,126,915</b>	<b>16,475,482</b>	<b>18,137,164</b>	<b>19,842,724</b>
<b>EXPENDITURE.</b>					
Canadian companies—					
Payments to policy-holders.....	15,265,414	16,601,436	19,405,276	25,909,382	24,132,222
General expenses...	9,969,772	10,539,236	10,998,450	11,322,408	12,253,155
Dividends to stock-holders.....	436,257	583,683	453,682	690,436	510,796
<b>Total expenditure..</b>	<b>25,671,443</b>	<b>27,724,355</b>	<b>30,857,408</b>	<b>37,922,226</b>	<b>36,896,173</b>
Excess of income over expenditure	20,053,179	22,271,547	21,909,222	16,915,613	23,520,134

<sup>1</sup>Figures subject to revision. <sup>2</sup>Income and expenditure in Canada.



## FINANCE.

## 72.—Cash Income and Expenditure of Canadian Life Companies and Cash Income and Expenditure in Canada of Life Companies other than Canadian Companies, 1912-1916—concluded.

Schedule.	1912.	1913.	1914.	1915.	1916 <sup>1</sup> .
EXPENDITURE—con.					
British companies—	\$	\$	\$	\$	\$
Payments to policy-holders.....	1,624,614	1,810,311	1,606,784	2,182,843	1,989,215
General expenses...	454,416	511,352	609,386	508,519	385,907
Dividends to stock-holders.....	—	—	—	—	—
Total expenditure <sup>2</sup> .	2,079,030	2,321,663	2,216,170	2,691,362	2,475,122
Excess of income over expenditure	1,162,682	1,347,173	1,600,692	1,315,827	1,314,048
American companies—					
Payments to policy-holders.....	6,063,448	6,875,456	7,197,375	8,335,383	9,549,992
General expenses...	2,610,301	2,999,600	3,230,648	3,403,578	3,728,538
Dividends to stock-holders.....	—	—	—	—	—
Total expenditure <sup>2</sup> .	8,673,749	9,875,056	10,428,023	11,738,961	13,278,530
Excess of income over expenditure	4,083,221	5,251,859	6,047,459	6,398,203	6,564,194

<sup>1</sup>Figures subject to revision. <sup>2</sup>Income and expenditure in Canada.

## 73.—Net Amount of Life Insurance in force in Canada, 1901-1916.

Year.	Canadian Companies.	British Companies.	American Companies.	All Companies.
	\$	\$	\$	\$
1901.....	284,684,621	40,216,186	138,868,227	463,769,034
1902.....	308,202,596	41,556,245	159,053,464	508,812,305
1903.....	335,638,940	42,127,260	170,676,800	548,443,000
1904.....	364,640,166	42,608,738	180,631,886	587,880,790
1905.....	397,946,902	43,809,211	188,578,127	630,334,240
1906.....	420,864,847	45,655,951	189,740,102	656,260,900
1907.....	450,573,724	46,462,314	188,487,447	685,523,485
1908.....	480,266,931	46,161,957	193,087,126	719,516,014
1909.....	515,415,437	46,985,192	217,956,351	780,356,980
1910.....	565,667,110	47,816,775	242,629,174	856,113,059
1911.....	626,770,154	50,919,675	272,530,942	950,220,771
1912.....	706,656,117	54,537,725	309,114,827	1,070,308,669
1913.....	750,637,902	58,176,795	359,775,330	1,168,590,027
1914.....	794,520,423	60,770,658	386,869,397	1,242,160,478
1915.....	829,972,809	58,087,018	423,556,850	1,311,616,677
1916 <sup>1</sup> .....	898,151,418	36,815,604 <sup>2</sup>	467,499,266	1,402,466,288

<sup>1</sup>Figures subject to revision.<sup>2</sup>Incomplete.

NOTE.—For the years 1875 to 1900, see Canada Year Book 1911, p. 313.

## INSURANCE.

## 74.—Premium Income of Life Companies, 1901-1916.

Year.	Canadian Companies.	British Companies.	American Companies.	All Companies.
	\$	\$	\$	\$
1901.....	9,133,890	1,346,666	4,709,298	15,189,854
1902.....	10,048,204	1,415,273	5,614,083	17,077,560
1903.....	10,882,650	1,435,318	5,922,297	18,240,265
1904.....	11,959,100	1,473,514	6,536,710	19,969,324
1905.....	13,947,827	1,500,232	6,632,658	22,080,717
1906.....	14,093,056	1,583,861	6,687,539	22,364,456
1907.....	14,963,714	1,567,951	6,612,207	23,143,872
1908.....	16,081,504	1,546,941	7,069,494	24,697,939
1909.....	17,438,780	1,590,656	7,476,859	26,506,295
1910.....	19,952,162	1,580,255	8,239,486	29,771,903
1911.....	20,736,480	1,680,731	9,202,415	31,619,626
1912.....	23,540,081	1,768,046	10,401,389	35,709,516
1913.....	24,784,163	1,905,486	11,951,557	38,641,206
1914.....	26,047,253	1,906,998	13,139,844	41,094,095
1915.....	28,546,303	2,071,592	14,488,783	45,106,678
1916 <sup>1</sup> .....	30,445,735	1,898,659	15,893,099	48,237,493

<sup>1</sup>Figures subject to revision.

NOTE.—For the years 1875 to 1900, see Canada Year Book 1911, p. 312.

## 75.—Life Insurance on Assessment Plan, 1912-1916.

General.	1912.	1913.	1914.	1915.	1911. <sup>1</sup>
No. certificates taken	20,098	15,391	6,102	4,503	3,897
No. certificates become claims.....	1,735	1,905	2,203	2,072	2,108
Amount paid by members..... \$	2,420,571	2,404,200	2,443,861	2,332,594	1,931,896
Amount of certificates new and taken up..... “	19,167,381	11,852,050	4,568,250	3,152,000	3,299,250
Net amount in force “	144,913,387	136,244,519	119,008,814	100,421,755	91,722,408
Amount of certificates become claims..... “	2,072,178	2,213,885	2,372,672	2,275,594	2,101,300
Claims paid..... “	2,051,248	2,171,048	2,339,953	2,254,448	2,234,240
Unsettled claims—					
Not resisted.... “	233,350	344,248	218,865	215,426	196,878
Resisted..... “	2,921	2,200	8,000	8,000	5,500
Amount terminated by—					
Death..... “	1,625,293	1,599,317	1,582,979	1,556,038	1,441,667
Surrender, expiry or lapse. “	11,285,447	22,768,463	24,581,265	22,015,141	11,934,616
Total terminated..... “	12,910,740	24,367,780	26,164,244	23,571,179	13,376,283

<sup>1</sup>Figures subject to revision.

## FINANCE.

## 75.—Life Insurance on Assessment Plan, 1912-1916—concluded.

General.	1912.	1913.	1914.	1915.	1916. <sup>1</sup>
	\$	\$	\$	\$	\$
Assets—					
Real estate.....	979,547	983,379	1,010,201	1,022,464	1,061,139
Loans on real estate	6,984,249	6,768,482	6,969,908	7,106,185	7,430,142
Policy Loans (Liens arising out of re- adjustment).....	—	—	—	19,101,153 <sup>2</sup>	18,500,291 <sup>2</sup>
Stocks, bonds and debentures.....	11,353,966	12,981,610	13,625,254	13,758,528	13,766,537
Cash on hand and in banks.....	850,786	539,391	1,012,246	1,026,428	749,659
Interest and rent due and accrued.....	234,612	253,982	268,875	397,529	462,904
Dues from members..	83,833	79,012	120,679	178,022	93,287
Other assets.....	1,584,809	1,365,614	1,159,167	1,955,345	2,680,277
<b>Total assets.....</b>	<b>22,071,802</b>	<b>22,971,470</b>	<b>24,166,330</b>	<b>44,545,654</b>	<b>44,744,236</b>
Liabilities—					
Claims, unsettled...	512,197	527,368	441,123	458,945	362,411
Reserve.....	—	—	—	41,395,398 <sup>2</sup>	42,479,090 <sup>2</sup>
Due on account of general expenses..	7,826	5,804	5,568	8,971	4,962
Other liabilities...	788,438	664,659	410,742	1,047,637	316,495
<b>Total liabilities not including reserve..</b>	<b>1,308,461</b>	<b>1,197,831</b>	<b>857,433</b>	<b>42,910,951</b>	<b>43,162,958</b>
Income—					
Assessments.....	4,940,399	4,961,774	5,094,179	4,762,454	3,981,676
Fees and dues.....	336,975	330,286	302,528	268,644	242,926
Interest and rents..	964,152	1,208,485	1,460,737	1,498,638	2,051,013
Other receipts.....	52,531	5,646	75,329	2,404	65,095
<b>Total income.....</b>	<b>6,294,057</b>	<b>6,506,191</b>	<b>6,932,773</b>	<b>6,532,140</b>	<b>6,340,710</b>
Expenditure—					
Paid to members...	3,942,593	4,306,131	4,522,395	4,518,298	4,475,379
General expenses...	619,045	705,078	822,937	459,990	446,829
<b>Total expenditure...</b>	<b>4,561,638</b>	<b>5,011,209</b>	<b>5,345,332</b>	<b>4,978,288</b>	<b>4,922,208</b>
Excess of income over expenditure..	1,732,419	1,494,982	1,587,441	1,553,852	1,418,502

<sup>1</sup>Figures subject to revision.      <sup>2</sup>Independent Order of Foresters.

<sup>3</sup>Independent Order of Foresters \$40,783,811 in 1915 and \$41,662,074 in 1916, including a special war reserve of \$500,000. Woodmen of the World, \$611,587 in 1915 and \$704,200 in 1916.

## INSURANCE.

## 76.—Insurance other than Fire and Life, 1915.

Companies.	Policies in force at end of year.	Pre- miums.	Amount of Policies new and renewed.	Net Amount in force.	Losses incurred.	Claims. paid.
	No.	\$	\$	\$	\$	\$
Guarantee.....	18,586	730,138	217,891,379	168,091,331	172,221	165,526
Personal Accident.	81,900	1,684,010	340,003,958	259,926,262	867,277	883,028
Personal Accident and Sickness.....	38,305	402,753	8,842,935	7,394,493	206,054	193,017
Employers' Liability.....	5,735	1,952,250	92,276,983	79,902,335	1,014,485	1,175,989
Sickness.....	90,885	1,084,798	8,089,224	10,691,980	680,358	702,164
Burglary.....	5,440	91,885	14,894,205	12,001,146	24,007	24,425
Steam Boiler.....	4,985	150,377	24,983,875	58,170,709	11,688	12,473
Hail.....	—	744,332	8,007,110	—	402,216	402,738
Weather.....	160	70,612	2,240,125	289,870	46,267	46,452
Inland Transporta- tion.....	1,866	165,450	282,673,179	8,144,387	109,545	81,918
Plate Glass.....	9,823	269,263	1	1	100,740	105,164
Automobile <sup>2</sup> .....	—	312,427	16,456,807	12,702,203	158,650	172,766
Automobile <sup>3</sup> .....	5,496	323,658	64,950,500	41,225,950	131,336	90,626
Sprinkler Leakage.	627	38,780	7,123,847	11,757,619	18,014	18,786
Live Stock.....	1,684	79,971	1,565,322	770,885	44,553	50,939
Title.....	—	79	15,000	—	none.	none.
Tornado.....	—	26,750	9,306,415	16,088,787	3,623	3,760
Explosion.....	—	5,949	3,664,731	1,389,735	none	none.

<sup>1</sup>Plate glass companies having adopted the system of insurance by replacement, instead of paying for the value of glass broken, their returns do not show the amount of insurance effected during the year, nor the amount in force at the end of the year.

<sup>2</sup>Including fire risk.      <sup>3</sup>Excluding fire risk.



## FINANCE.

## 77.—Insurance other than Fire and Life, 1916.

Companies.	Policies in force at end of year.	Pre- miums.	Amount of Policies new and renewed.	Net Amount in force.	Losses incurred.	Claims paid.
	No.	\$	\$	\$	\$	\$
Guarantee.....	18,905	799,010	221,230,048	181,968,018	319,983	156,377
Personal Accident.	87,422	1,535,428	369,705,904	286,489,532	652,253	624,449
Personal Accident and Sickness....	50,985	585,775	19,924,786	17,405,207	309,905	293,441
Employers' Liability.....	5,582	1,930,198	85,575,170	74,502,695	1,144,937	1,133,653
Sickness.....	92,038	1,109,801	4,624,270 <sup>1</sup>	5,463,570 <sup>1</sup>	719,195	720,830
Burglary.....	8,232	118,673	25,548,648	22,515,669	22,107	15,347
Steam Boiler.....	5,281	199,017	28,580,647	63,757,470	5,716	5,384
Hail.....	49	1,430,866	23,007,636	46,665	1,570,033	1,602,081
Inland Transporta- tion.....	6	165,605	396,861,323	2,436,191	48,274	74,695
Plate Glass.....	11,495	271,302	<sup>1</sup>	<sup>1</sup>	131,502	125,296
Automobile <sup>2</sup> .....	3,285	341,944	24,457,831	15,372,341	141,438	137,774
Automobile <sup>3</sup> .....	8,558	567,559	73,279,540	58,069,502	174,675	167,319
Sprinkler Leakage.	708	51,823	8,633,941	13,084,962	29,548	25,753
Live Stock.....	2,084	76,084	1,752,910	782,681	52,196	51,825
Title.....	—	50	—	—	none.	none.
Tornado.....	3,066	48,564	12,761,316	21,157,448	24,023	22,233
Explosion.....	—	63,435	17,069,653	10,580,653	none.	none.

<sup>1</sup>Plate glass companies having adopted the system of insurance by replacement, instead of paying for the value of glass broken, their returns do not show the amount of insurance effected during the year, nor the amount in force at the end of the year.

<sup>2</sup>Including fire risk.      <sup>3</sup>Excluding fire risk.      <sup>4</sup>Returns of two companies only.

## INSURANCE.

## 78.—Income and Expenditure and Assets and Liabilities of Canadian Companies doing Insurance Business other than Fire and Life, 1915.

Companies.	Cash Income.	Cash Expendi- ture.	Excess of Income over Expendi- ture.	Assets.	Liabili- ties. <sup>1</sup>	Excess of Assets over Liabili- ties.
	\$	\$	\$	\$	\$	\$
Boiler Inspection.....	76,460	64,581	11,879	285,656	84,315	201,341
Canada Accident.....	267,505	242,799	24,706	538,539	163,689	374,850
Canada Hail.....	56,215	46,379	9,836	78,473	1,238	77,235
Canada Weather.....	72,362	69,541	2,821	36,255	5,117	31,138
Canadian Casualty and Boiler.....	107,463	112,243	—4,780	154,051	73,554	80,497
Canadian Surety.....	58,824	45,595	13,229	253,713	25,094	228,619
Casualty Co. of Canada	9,079	8,471	608	19,970	4,000	15,970
Chartered Trust and Executor Co.....	12,360	11,456	904	241,056	5,965	235,091
Dominion-Gresham...	122,556	113,255	9,301	333,066	90,093	242,973
General Accident.....	217,704	273,115	—55,411	277,109	146,386	130,723
General Animals.....	52,813	59,513	—6,700	43,363	16,582	26,781
Globe Indemnity Co. of Canada.....	502,171	483,260	18,911	518,857	251,515	267,342
Guarantee Co. of N.A.	316,963	249,731	67,232	2,056,292	296,927	1,759,365
Guardian Accident and Guarantee.....	87,985	93,895	—5,910	258,037	49,321	208,716
Imperial Guarantee and Accident.....	257,479	251,312	6,167	421,721	144,457	277,264
London and Lancashire Guarantee and Acci- dent.....	863,398	1,050,504	—187,106	1,276,154	454,981	821,173
Merchants Casualty Co.....	299,795	251,857	47,938	141,180	40,265	100,915
Merchants' and Em- ployers' Guarantee and Accident.....	90,033	82,621	7,412	156,661	34,172	122,489
Moose, Grand Lodge of the Loyal Order of..	5,464	6,367	—903	13,662	13,778	—116
North American Acci- dent.....	164,792	148,482	16,310	251,528	88,747	162,781
Protective Association of Canada.....	147,903	144,214	3,689	70,144	43,292	26,852
<b>Total.....</b>	<b>3,789,324</b>	<b>3,809,191</b>	<b>—19,867</b>	<b>7,425,487</b>	<b>2,033,488</b>	<b>5,391,999</b>

<sup>1</sup>Not including capital stock.

## FINANCE.

## 79.—Income and Expenditure and Assets and Liabilities of Canadian Companies doing Insurance Business other than Fire and Life, 1916.

Companies.	Cash Income.	Cash Expendi- ture.	Excess of Income over Expendi- ture.	Assets.	Liabili- ties. <sup>1</sup>	Excess of Assets over Liabili- ties.
	\$	\$	\$	\$	\$	\$
Boiler Inspection. ....	104,643	73,370	31,273	326,074	103,654	222,420
Canada Hail. ....	114,382	145,218	—30,836	56,613	7,834	48,779
Canada Weather. ....	84,643	86,973	—2,330	27,983	9,309	18,674
Canadian Surety. ....	75,619	54,522	21,097	280,045	33,008	247,037
Casualty Co. of Can- ada. ....	3,371	4,418	—1,047	21,002	3,897	17,105
Chartered Trust and Executor Co. ....	13,121	12,187	934	244,463	6,163	238,300
Dominion-Gresham. . .	132,410	101,489	30,921	345,904	88,969	256,935
General Accident. ....	369,605	342,216	27,389	450,084	216,769	233,315
General Animals. ....	53,522	57,500	—3,978	45,333	20,300	25,033
Globe Indemnity Co. of Canada. ....	525,946	496,303	29,643	570,390	304,240	266,150
Guarantee Co. of N. A.	348,552	272,723	75,829	2,096,556	268,831	1,827,725
Guardian Accident and Guarantee. ....	101,798	90,555	11,243	284,091	64,368	219,723
Imperial Guarantee and Accident. ....	266,731	242,579	24,152	449,935	162,390	287,545
London and Lancashire Guarantee and Acci- dent. ....	273,936	600,225	—326,289	883,630	285,463	598,167
Merchants Casualty Co. ....	470,046	411,565	58,481	208,978	79,437	129,541
Merchants' and Em- ployers' Guarantee and Accident. ....	124,566	123,040	1,526	167,947	43,633	124,314
Moose, Grand Lodge of the Loyal Order of. .	3,184	3,044	140	13,978	14,405	—427
North American Ac- cident. ....	192,045	164,025	28,020	299,385	125,851	173,534
Protective Association of Canada. ....	146,220	142,326	3,894	73,352	45,323	28,029
<b>Total. ....</b>	<b>3,404,340</b>	<b>3,424,278</b>	<b>—19,938</b>	<b>6,845,743</b>	<b>1,883,844</b>	<b>4,961,899</b>

<sup>1</sup>Not including capital stock.

## INSURANCE.

## 80.—Income and Expenditure in Canada of Companies, other than Canadian, doing Business other than Fire and Life, 1915.

Companies.	INCOME (CASH).			EXPENDITURE (CASH).			
	Premi- ums.	Int. & Divi- dends on Stock.	Total Cash Income.	Paid for Losses.	Gen- eral Expen- diture.	Total Cash Expen- diture.	Excess of Income over Expen- diture.
	\$	\$	\$	\$	\$	\$	\$
American & For- eign Marine....	17,711	none.	17,711	9,405	3,989	13,394	4,317
American Surety.	15,915	2,680	18,595	1,476	4,467	5,943	12,652
British & Foreign Marine.....	2,087	4,680	6,767	270	428	698	6,069
Fidelity Casualty Co.....	207,879	7,903	215,782	84,204	100,417	184,621	31,161
Hartford Steam Boiler.....	1,820	1,350	3,170	none.	none.	none.	3,170
International Fi- delity.....	6,931	none.	6,931	1,430	448	1,878	5,053
LloydsPlateGlass	63,538	4,563	68,101	25,520	28,513	54,033	14,068
Loyal Protective	88,318	1,727	100,705 <sup>1</sup>	48,254	33,311	81,566	19,139
Maryland Casu- alty.....	205,668	17,220	222,888	96,832	84,999	181,831	41,057
National Provin- cial Plate Glass	12,882	none.	12,882	6,123	6,235	12,358	524
National Surety..	58,090	5,119	63,209	11,100	23,173	34,273	28,936
New York Plate Glass.....	19,748	1,309	21,057	7,322	7,055	14,377	6,680
Ocean Marine....	16,238	none.	16,238	489	2,532	3,021	13,217
Railway Passen- gers.....	157,113	none.	157,113	53,776	81,734	135,510	21,603
Ridgely Protec- tive.....	10,460	1,190	17,524 <sup>2</sup>	6,681	11,804	18,485	— 961
Travelers' Indem- nity Co., Hart- ford.....	94,277	6,060	100,337	37,837	37,553	75,390	24,947
United Commer- cial Travelers of America....	16,226	1,350	19,003 <sup>3</sup>	22,583	552	23,135	—4,132
United States Fi- delity and Gua- ranty.....	280,851	13,475	294,326	93,484	129,113	222,597	71,729
<b>Total .....</b>	<b>1,275,752</b>	<b>68,626</b>	<b>1,362,339</b>	<b>506,786</b>	<b>556,323</b>	<b>1,063,110</b>	<b>299,229</b>

<sup>1</sup>Includes sundries \$10,660.<sup>2</sup>Includes sundries \$5,874.<sup>3</sup>Includes sundries \$1,427.



## FINANCE.

## 81.—Income and Expenditure in Canada of Companies, other than Canadian, doing Business other than Fire and Life, 1916.

Companies.	INCOME (CASH).			EXPENDITURE (CASH).			
	Premi- ums.	Int. & Divi- dends on Stock.	Total Cash Income.	Paid for Losses.	Gen- eral Expen- diture.	Total Cash Expen- diture.	Excess of Income over Expen- diture.
	\$	\$	\$	\$	\$	\$	\$
American & For- eign Marine. . . . .	23,727	none.	23,727	218	5,558	5,776	17,951
American Surety.	15,515	2,680	18,195	—222	5,201	4,979	12,216
British & Foreign Marine. . . . .	1,360	4,680	6,040	3,082	360	3,442	2,598
Fidelity Casualty Co. . . . .	208,537	6,888	215,425	75,241	110,331	185,572	29,853
Hartford Steam Boiler. . . . .	2,345	1,350	3,695	none.	none.	none.	3,695
International Fi- delity. . . . .	6,760	none.	6,760	1,547	430	1,977	4,783
Lloyds Plate Glass	53,205	3,905	57,110	27,467	31,199	58,666	—1,556
Loyal Protective	92,772	2,207	105,722 <sup>1</sup>	59,930	48,364	108,294	—2,572
Maryland Casu- alty. . . . .	237,873	12,801	250,682 <sup>2</sup>	94,736	116,746	211,482	39,200
National Provin- cial Plate Glass	12,386	none.	12,386	7,459	5,883	13,342	— 956
National Surety..	68,148	5,692	73,840	13,719	27,413	41,132	32,708
New York Plate Glass. . . . .	15,808	1,313	17,121	7,788	7,542	15,330	1,791
Ocean Marine. . .	19,553	none.	19,553	1,058	3,660	4,718	14,835
Railway Passen- gers. . . . .	208,220	none.	208,220	87,123	106,696	193,819	14,401
Ridgely Protec- tive. . . . .	24,787	1,279	33,742 <sup>3</sup>	15,927	16,037	31,964	1,778
Travelers' Indem- nity Co., Hart- ford. . . . .	128,393	5,808	134,201	33,161	58,026	91,187	43,014
United Commer- cial Travelers of America. . . .	17,514	none.	17,514	13,126	3,363	16,489	1,025
United States Fi- delity and Gua- ranty. . . . .	305,338	13,033	318,371	76,969	158,605	235,574	82,797
<b>Total. . . . .</b>	<b>1,442,241</b>	<b>61,636</b>	<b>1,522,304</b>	<b>518,329</b>	<b>705,414</b>	<b>1,223,743</b>	<b>298,561</b>

<sup>1</sup>Includes sundries \$10,743.<sup>2</sup>Includes sundries \$8.<sup>3</sup>Includes sundries \$7,676.

## INSURANCE.

## 82.—Dominion and Provincial Fire Insurance in Canada, 1916.

Business transacted by	Net insurance written.	Net in force Dec. 31, 1916.	Net premiums received.	Net losses paid.
	\$	\$	\$	\$
1. Dominion licensees . . . . .	3,418,238,680	3,720,058,236	27,783,851	15,111,133
2. Provincial licensees:				
(a) Provincial companies within provinces by which they are incorporated . . . . .	322,270,079	755,401,438	3,190,014	1,834,679
(b) Provincial companies within provinces other than those by which they are incorporated . .	23,364,377	48,079,232	192,952	98,807
(c) British and Foreign companies . .	22,637,183	46,435,008	519,538	254,952
Total for Provincial Com- panies . . . . .	368,271,639	849,915,678	3,902,504	2,188,438
Grand Totals . . . . .	3,786,510,319	4,569,973,914	31,686,355	17,299,571

## 83.—Dominion and Provincial Insurance in Canada, other than Fire and Life, 1916.

Business transacted by	Net premiums received.	Net losses paid.
	\$	\$
1. Dominion licensees . . . . .	9,295,134	5,156,457
2. Provincial licensees—		
(a) Provincial companies within provinces by which they are incorporated . . . . .	767,417	656,502
(b) Provincial companies within provinces other than those by which they are incorporated . . . . .	223,921	243,670
(c) British and Foreign Companies . . . . .	765,806	709,719
Total for Provincial Companies . . . . .	1,757,144	1,609,891
Grand Totals . . . . .	11,052,278	6,766,348

## FINANCE.

## 84.—Dominion and Provincial Insurance in Canada, other than Fire and Life, 1916.

## NET PREMIUMS RECEIVED.

Class of business.	Dominion Licensees	Provincial Licensees.				Grand Totals.
		(a) Prov. Cos. within provinces by which they are incorp.	(b) Prov. Cos. within other than those by which they are incorp.	(c) British and Foreign.	Total provincial Licensees	
Accident.....	\$1,535,428	\$ 27,204	\$ -	\$ 53,060	\$ 80,264	\$1,615,692
Accident and Sickness combined.....	585,775	30,900	1,621	3,526	36,047	621,822
Automobile (including Fire risk).....	341,944	-	-	5,169	5,169	347,113
Automobile (excluding Fire risk).....	567,559	-	-	24,781	24,781	592,340
Burglary.....	118,673	-	-	-	-	118,673
Employers' Liability..	1,930,198	1,541	-	29,165	30,706	1,960,904
Explosion.....	63,435	-	-	-	-	63,435
Guarantee.....	799,010	58,095	509	1,321	59,925	858,935
Hail.....	1,430,866	552,138	215,154	640,681	1,407,973	2,838,839
Inland Transportation	165,605	-	-	1,816	1,816	167,421
Live Stock.....	76,084	7,863	5,428	-	13,291	89,375
Plate Glass.....	271,302	45,982	1,209	5,590	52,781	324,083
Sickness.....	1,109,801	4,692	-	513	5,205	1,115,006
Sprinkler Leakage....	51,823	-	-	-	-	51,823
Steam Boiler.....	199,017	-	-	-	-	199,017
Title.....	50	-	-	-	-	50
Tornado.....	48,564	39,002	-	184	39,186	87,750
<b>Totals.....</b>	<b>9,295,134</b>	<b>767,417</b>	<b>223,921</b>	<b>765,806</b>	<b>1,757,144</b>	<b>11,052,278</b>

## NET LOSSES PAID.

Accident.....	624,449	18,347	-	22,208	40,555	665,004
Accident and sickness combined.....	293,441	3,515	1,048	2,641	7,204	300,645
Automobile (including Fire risk).....	137,774	-	-	1,363	1,363	139,137
Automobile (exclud- ing Fire risk).....	167,319	-	-	12,786	12,786	180,105
Burglary.....	15,347	-	-	-	-	15,347
Employers' Liability..	1,133,653	-	-	21,493	21,493	1,155,146
Explosion.....	None.	-	-	-	None.	None.
Guarantee.....	156,377	8,600	1,683	88	10,371	166,748
Hail.....	1,602,081	591,727	238,850	647,670	1,478,247	3,080,328
Inland Transportation	74,695	-	-	79	79	74,774
Live Stock.....	51,825	2,048	1,275	-	3,323	55,148
Plate Glass.....	125,296	20,329	814	749	21,892	147,188
Sickness.....	720,830	3,004	-	642	3,646	724,476
Sprinkler Leakage....	25,753	-	-	-	-	25,753
Steam boiler.....	5,384	-	-	-	-	5,384
Title.....	None.	None.	-	-	None.	None.
Tornado.....	22,233	8,932	-	-	8,932	31,165
<b>Totals.....</b>	<b>5,156,457</b>	<b>656,502</b>	<b>243,670</b>	<b>709,719</b>	<b>1,609,891</b>	<b>6,766,348</b>

## INSURANCE.

## 85.—Dominion and Provincial Life Insurance in Canada, 1916.

Business transacted by	Net Insurance written.	Net in force Dec. 31, 1916.	Net Premiums Received.	Net losses Paid.
<b>1. Dominion licensees—</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
(a) Life companies.....	231,101,625	1,422,179,632	48,093,105	18,719,677
(b) Fraternal.....	3,299,250	98,681,224	1,931,898	2,147,515
<b>Totals.....</b>	<b>234,400,875</b>	<b>1,513,860,856</b>	<b>50,025,003</b>	<b>20,867,192</b>
<b>2. Provincial licensees—</b>				
(a) Provincial companies within province by which they are incorporated.				
(i) Life companies.....	2,725,703	11,327,435	326,532	54,287
(ii) Fraternal.....	10,228,023	207,699,570	3,243,372	3,095,684
(b) Provincial companies in provinces other than those by which they are incorporated.				
(i) Life companies.....	502,968	1,706,268	42,779	7,625
(ii) Fraternal.....	3,999,450	71,207,427	726,660	648,515
(c) British and foreign com- panies.				
(i) Fraternal.....	4,141,300	56,156,529	971,660	786,309
<b>Totals for Provincial companies....</b>	<b>21,597,444</b>	<b>348,097,229</b>	<b>5,311,003</b>	<b>4,592,420</b>
<b>Grand Totals.....</b>	<b>255,998,319</b>	<b>1,861,958,085</b>	<b>55,336,006</b>	<b>25,459,612</b>

## 86.—Fire Insurance effected on property in Canada, under Section 139 of the Insurance Act, 1910, by Companies, Associations or Underwriters not licensed to transact business in Canada.

Companies.	Amount of Insurance.
Lloyds' Associations.....	\$ 55,864,594
Reciprocal Underwriters.....	28,574,461
Mutual Companies.....	135,548,458
Stock Companies.....	42,816,369
<b>Total.....</b>	<b>262,803,882</b>



## ADMINISTRATION.

86.—Fire Insurance effected on property in Canada, under Section 139 of the Insurance Act, 1910, by Companies, Associations, or Underwriters not licensed to transact business in Canada—concluded.

Description of Property.	Amount of Insurance.
	\$
Lumber and Lumber Mills.....	15,893,068
Other industrial Plants and Mercantile establishments.....	185,548,910
Stock and Merchandise.....	36,499,877
Railway property and equipment.....	24,055,737
Miscellaneous.....	806,290
<b>Total.....</b>	<b>262,803,882</b>

## Amount by Provinces.

	\$
P.E. Island.....	24,302
Nova Scotia.....	6,415,987
New Brunswick.....	8,671,915
Quebec.....	95,970,370
Ontario.....	112,252,434
Manitoba.....	11,516,133
Saskatchewan.....	8,679,496
Alberta.....	6,145,890
British Columbia.....	12,710,055
Yukon.....	417,300
<b>Total.....</b>	<b>262,803,882</b>

## XI.—ADMINISTRATION.

## PARLIAMENTARY REPRESENTATION.

**Representation of Provinces.**—The four original provinces of the Dominion were Ontario, Quebec, Nova Scotia and New Brunswick, which were given parliamentary representation according to Section 37 of the British North America Act, 1867. By Imperial Orders in Council the provinces of British Columbia and Prince Edward Island were admitted into the Dominion, the former on July 20, 1871, by Order dated May 16, 1871, and the latter on July 1, 1873, by Order dated June 26, 1873. An Act of the Dominion Parliament of May 12, 1870 (33 Vict., c. 3), provided for the formation of the province of Manitoba out of Rupert's Land and the Northwest Territories, so soon as these should be admitted into the Dominion of Canada, which admission was effected by Imperial Order in Council dated June 23, 1870, and taking effect on July 15, 1870. In consequence of doubts as to the legal validity of the Dominion Act of 1870 (33 Vict., c. 3), the Imperial Parliament passed an Act in 1871 (34-35 Vict., c. 28) making the Canadian Act valid and effectual.

## PARLIAMENTARY REPRESENTATION.

**Parliament of Canada.**—The Parliament of the Dominion of Canada consists of the Senate with 87 members and of the House of Commons with 221 members, senators being appointed for life by the Governor-General and members of the House of Commons being elected by the people. The ordinary legal limit of duration for each parliament is five years; but by Act of the Imperial Parliament (6-7 Geo. V., c. 19), passed June 1, 1916, and intituled an Act to amend the British North America Act, 1867, the duration of the 12th Parliament of Canada was extended until October 7, 1917. The 12th Parliament of Canada was dissolved by proclamation of the Governor General on October 6th, 1917; and preparations are now being made for the election of a new Parliament on December 17, 1917. A Redistribution Act passed after each census readjusts the number of representatives in the House of Commons in accordance with rules laid down in Section 51 of the British North America Act, 1867, of the Imperial Parliament (30-31 Vict., c. 3). These rules provide that the province of Quebec shall always have the fixed number of 65 members, and that there shall be assigned to each of the other provinces such a number of members as will bear the same proportion to the number of its population (ascertained by the census) as the number 65 bears to the population of Quebec.

**The Senate.**—The numerical representation of the Senate by provinces is as follows: Prince Edward Island 4, Nova Scotia 10, New Brunswick 10, Quebec 24, Ontario 24, Manitoba 4, Saskatchewan 4, Alberta 4, British Columbia 3. Total 87.

**House of Commons.**—The representation of the people in the House of Commons has been governed by Acts of the Dominion Parliament passed in 1903, 1904 and 1907 (3 Edw. VII, c. 60; 4 Edw. VII, c. 35; 6-7 Edw. VII, c. 41). The provinces of Saskatchewan and Alberta were created by Acts of the Dominion Parliament passed in 1905 (4-5 Edw. VII, cc. 3 and 42), and after the Northwest Census of 1906 the Representation Act was amended by an Act of April 27, 1907 (6-7 Edw. VII, c. 41), which gave Saskatchewan ten members and Alberta seven members after the next ensuing election of October 26, 1908. The seven additional members thus given to Saskatchewan and Alberta brought the representation of Canada in the House of Commons up to 221 as stated above.

**Representation Act, 1914.**—By the Representation Act, 1914 (4-5 Geo. V, c. 51), which was assented to on June 12, 1914, and which will come into operation for the forthcoming election of the thirteenth Parliament of Canada, it is provided that the House of Commons shall consist of 234 members, distributed by provinces as follows: Prince Edward Island 3, Nova Scotia 16, New Brunswick 11, Quebec 65, Ontario 82, Manitoba 15, Saskatchewan 16, Alberta 12, British Columbia 13 and Yukon Territory 1. Table 1 shows the representation in the House of Commons according to the districts of the Representation Act, 1914.

## ADMINISTRATION.

## 1.—Representation in the House of Commons according to the Districts of the Representation Act, 1914.

Provinces and Districts.	Population 1911.	Representation.	Provinces and Districts.	Population 1911.	Representation.
<b>Canada.</b>	<b>7,206,643<sup>1</sup></b>	<b>234</b>	<b>Quebec.</b>	<b>2,005,779</b>	<b>65</b>
<b>Prince Edward Island.</b>	<b>93,728</b>	<b>3</b>	Argenteuil.....	16,766	1
Kings.....	22,636	1	Bagot.....	18,206	1
Prince.....	32,779	1	Beauce.....	51,399	1
Queens.....	38,313	1	Beauharnois.....	20,802	1
<b>Nova Scotia.</b>	<b>492,338</b>	<b>16</b>	Bellechasse.....	21,141	1
Antigonish and Guysborough.....	29,010	1	Berthier.....	19,872	1
Cape Breton North and Victoria.....	29,888	1	Bonaventure.....	28,110	1
Cape Breton South and Richmond.....	66,625	2	Brome.....	13,216	1
Colchester.....	23,664	1	Chambly and Vercherés.....	28,715	1
Cumberland.....	40,543	1	Champlain.....	39,824	1
Digby and Annapolis...	29,871	1	Charlevoix- Montmorency.....	27,972	1
Halifax City and County	80,257	2	Chateauguay-Huntingdon.....	26,562	1
Hants.....	19,703	1	Chicoutimi-Saguenay <sup>2</sup> ..	65,888	1
Inverness.....	25,571	1	Compton.....	29,630	1
Kings.....	21,780	1	Dorchester.....	25,096	1
Lunenburg.....	33,260	1	Drummond and Arthabaska.....	41,590	1
Pictou.....	35,858	1	Gaspé.....	35,001	1
Shelburne and Queens..	24,211	1	Hull.....	34,192	1
Yarmouth and Clare...	32,097	1	Joliette.....	23,911	1
<b>New Brunswick.</b>	<b>351,889</b>	<b>11</b>	Kamouraska.....	20,888	1
Charlotte.....	21,147	1	Labelle.....	31,149	1
Gloucester.....	32,662	1	Laprairie-Napierville...	19,335	1
Kent.....	24,376	1	L'Assomption-Montcalm.....	28,506	1
Northumberland.....	31,194	1	Laval-Deux-Montagnes.....	25,275	1
Restigouche and Madawaska.....	32,321	1	Levis.....	28,913	1
Royal.....	31,491	1	L'Islet.....	16,435	1
St. John City and County and Albert County	63,263	2	Lotbinière.....	22,158	1
Victoria and Carleton..	33,034	1	Maskinongé.....	16,509	1
Westmorland.....	44,621	1	Matane.....	27,539	1
York-Sunbury.....	37,780	1	Mégantic.....	31,314	1
			Missisquoi.....	17,466	1
			Montmagny.....	17,356	1

<sup>1</sup> Including 5,900, the population of the Northwest Territories.<sup>2</sup> Includes portion of Northwest Territories added to Quebec by the Extension of Boundaries Act, 1912, with a population of 2,547.

NOTE.—Included in the total population of Quebec are the following unorganized parts and their respective populations, which are not attached to any county, viz.—Abitibi 910, East Main 160, Mistassini 191, Nemiskau 56, Rupert's House 445, Stratton Island 3, Waswanipi 301.

## PARLIAMENTARY REPRESENTATION.

## 1.—Representation in the House of Commons according to the Districts of the Representation Act, 1914—con.

Provinces and Districts.	Population 1911.	Representation.	Provinces and districts.	Population 1911.	Representation.
<b>Quebec—concluded.</b>			<b>Ontario—con.</b>		
Montreal Island—					
Hochelaga.....	44,884	1	Dufferin.....	17,740	1
Jacques Cartier.....	55,943	1	Dundas.....	25,973	1
Laurier-Outremont....	45,176	1	Durham.....	26,411	1
Maisonneuve.....	33,796	1	Elgin E.....	17,597	1
Ste. Anne.....	41,541	1	Elgin W.....	26,715	1
St. Antoine.....	34,794	1	Essex N.....	38,006	1
St. Denis.....	45,141	1	Essex S.....	29,541	1
Westmount-St. Henri..	56,088	1	Fort William and Rainy River.....	33,626	1
St. James.....	44,057	1	Frontenac.....	21,944	1
St. Laurent-St. George.....	38,883	1	Glengarry and Stormont	38,226	1
George-Etienne Cartier.....	51,937	1	Grenville.....	17,545	1
St. Mary.....	62,521	1	Grey N.....	33,957	1
Nicolet.....	30,055	1	Grey S.....	31,934	1
Pontiac.....	29,416	1	Haldimand.....	21,562	1
Portneuf.....	30,260	1	Halton.....	22,208	1
Quebec County.....	28,046	1	Hamilton E.....	39,793	1
Quebec E.....	30,922	1	Hamilton W.....	37,279	1
Quebec S.....	24,163	1	Hastings E.....	24,978	1
Quebec W.....	30,506	1	Hastings W.....	30,825	1
Richelieu.....	19,810	1	Huron N.....	26,886	1
Richmond and Wolfe...	39,491	1	Huron S.....	26,097	1
Rimouski.....	23,951	1	Kent.....	52,439	1
St. Hyacinthe-Rouville.	35,473	1	Kingston.....	20,660	1
St. Jean-Iberville.....	21,882	1	Lambton E.....	25,779	1
Shefford.....	23,976	1	Lambton W.....	29,109	1
Sherbrooke.....	23,211	1	Lanark.....	34,375	1
Stanstead.....	20,765	1	Leeds.....	36,753	1
Temiscouata.....	36,430	1	Lennox and Addington..	20,386	1
Terrebonne.....	29,018	1	Lincoln.....	35,429	1
Three Rivers and St. Maurice.....	36,153	1	London.....	46,300	1
Vaudreuil-Soulanges...	20,439	1	Middlesex E.....	23,465	1
Wright.....	23,862	1	Middlesex W.....	27,300	1
Yamaska.....	20,387	1	Muskoka.....	21,233	1
			Nipissing.....	43,714	1
			Norfolk.....	27,110	1
			Northumberland.....	32,892	1
			Ontario N.....	17,141	1
			Ontario S.....	23,865	1
<b>Ontario.</b>	<b>2,527,292</b>	<b>82</b>	Ottawa.....	77,182	2
Algoma E.....	37,968	1	Oxford N.....	25,077	1
Algoma W.....	28,752	1	Oxford S.....	22,294	1
Brant.....	19,259	1	Parry Sound.....	26,547	1
Brantford City.....	26,617	1	Peel.....	22,102	1
Bruce N.....	23,783	1	Perth N.....	30,235	1
Bruce S.....	26,249	1	Perth S.....	18,947	1
Carleton.....	24,417	1	Peterborough E.....	15,499	1
			Peterborough W.....	26,151	1



## ADMINISTRATION.

## 1.—Representation in the House of Commons according to the Districts of the Representation Act, 1914—concluded.

Provinces and districts.	Population 1911.	Representation.	Provinces and districts.	Population 1911.	Representation.
<b>Ontario—concluded.</b>			<b>Saskatchewan.</b>	<b>492,432</b>	<b>16</b>
Port Arthur and Kenora <sup>1</sup> .....	37,641	1	Assiniboia.....	31,975	1
Prescott.....	26,968	1	Battleford.....	21,753	1
Prince Edward.....	17,150	1	Battleford North.....	24,017	1
Renfrew N.....	23,617	1	Humboldt.....	37,126	1
Renfrew S.....	27,852	1	Kindersley.....	21,937	1
Russell.....	39,434	1	Last Mountain.....	32,464	1
Simcoe E.....	35,294	1	Maple Creek.....	19,869	1
Simcoe N.....	24,699	1	McKenzie.....	36,921	1
Simcoe S.....	25,060	1	Moosejaw.....	31,552	1
Timiskaming.....	37,076	1	Prince Albert.....	36,162	1
Toronto South.....	43,956	1	Qu'Appelle.....	30,470	1
Toronto East.....	53,712	1	Regina.....	44,441	1
Toronto Centre.....	54,792	1	Saskatoon.....	31,539	1
Toronto West.....	57,804	1	Saltcoats.....	32,332	1
Toronto (Parkdale).....	59,609	1	Swift Current.....	28,793	1
Toronto North.....	51,318	1	Weyburn.....	31,081	1
Victoria.....	36,499	1			
Waterloo N.....	33,619	1	<b>Alberta.</b>	<b>374,663</b>	<b>12</b>
Waterloo S.....	28,988	1	Battle River.....	26,140	1
Welland.....	42,163	1	Bow River.....	27,044	1
Wellington N.....	22,292	1	Calgary E.....	35,172	1
Wellington S.....	32,200	1	Calgary W.....	30,211	1
Wentworth.....	34,634	1	Edmonton E.....	32,188	1
York E.....	32,864	1	Edmonton W.....	34,956	1
York W.....	33,306	1	Lethbridge.....	29,552	1
York S.....	34,458	1	Macleod.....	30,685	1
York N.....	22,415	1	Medicine Hat.....	24,481	1
			Red Deer.....	37,815	1
			Strathcona.....	28,501	1
			Victoria.....	37,918	1
<b>Manitoba.</b>	<b>461,630</b>	<b>15</b>			
Brandon.....	39,734	1	<b>British Columbia.</b>	<b>392,480</b>	<b>13</b>
Dauphin.....	23,371	1	Burrard.....	48,493	1
Lisgar.....	25,978	1	Cariboo.....	26,908	1
Macdonald.....	20,802	1	Comox-Alberni.....	16,777	1
Marquette.....	32,384	1	Kootenay E.....	22,399	1
Nelson <sup>2</sup> .....	11,973	1	Kootenay W.....	28,373	1
Neebawa.....	23,913	1	Nanaimo.....	31,822	1
Portage la Prairie.....	22,059	1	Skeena.....	25,486	1
Provencher.....	23,996	1	Vancouver Centre.....	60,104	1
Selkirk.....	32,650	1	Vancouver South.....	20,446	1
Souris.....	27,133	1	Victoria City.....	31,660	1
Springfield.....	37,527	1	Westminster Dist.....	22,848	1
Winnipeg Centre.....	58,903	1	Westminster, New.....	29,098	1
Winnipeg North.....	45,682	1	Yale.....	28,066	1
Winnipeg South.....	35,525	1			
			<b>Yukon Territory.</b>	<b>8,512</b>	<b>1</b>

<sup>1</sup> Includes portion of Northwest Territories added to Ontario by the Extension of Boundaries Act, 1912, with a population of 4,018.<sup>2</sup> Includes portion of Northwest Territories added to Manitoba by the Extension of Boundaries Act, 1912, with a population of 6,016.

## DOMINION PARLIAMENTS.

## 2.—Governors-General of Canada, 1867-1917.

Name.	Date of appointment.	Date of assumption of office.
Viscount Monck, G.C.M.G.....	June 1, 1867	July 1, 1867
Lord Lisgar, G.C.M.G. (Sir John Young).....	Dec. 29, 1868	Feb. 2, 1869
The Earl of Dufferin, K.P., K.C.B., G.C.M.G.....	May 22, 1872	June 25, 1872
The Marquis of Lorne, K.T., G.C.M.G.....	Oct. 5, 1878	Nov. 25, 1878
The Marquis of Lansdowne, G.C.M.G.....	Aug. 18, 1883	Oct. 23, 1883
Lord Stanley of Preston, G.C.B.....	May 1, 1888	June 11, 1888
The Earl of Aberdeen, K.T., G.C.M.G.....	May 22, 1893	Sept. 18, 1893
The Earl of Minto, G.C.M.G.....	July 30, 1898	Nov. 12, 1898
The Earl Grey, G.C.M.G.....	Sept. 26, 1904	Dec. 10, 1904
Field-Marshal H.R.H. the Duke of Connaught, K.G.	Mar. 21, 1911	Oct. 13, 1911
The Duke of Devonshire, K.G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916

## 3.—Dominion Parliaments, 1867-1917.

Number of Parliaments.	Session.	Date of Opening.	Date of Prorogation.	Days of session.	Elections, writs returnable, dissolutions and length of Parliaments.
1st Parliament..	1st	Nov. 6, 1867	May 22, 1868	118 <sup>1</sup>	Aug., Sept., 1867 <sup>3</sup> Sept. 24, 1867. <sup>4</sup> July 8, 1872. <sup>5</sup> 4 y., 9 m., 15 d <sup>6</sup>
	2nd	April 15, 1869	June 22, 1869	69	
	3rd	Feb. 15, 1870	May 12, 1870	87	
	4th	Feb. 15, 1871	April 14, 1871	59	
	5th	April 11, 1872	June 14, 1872	65	
2nd Parliament..	1st	Mar. 5, 1873	Aug. 13, 1873	81 <sup>2</sup>	July, Aug., Sept.'72 <sup>3</sup> Sept. 3, 1872. <sup>4</sup> Jan. 2, 1874. <sup>5</sup> 1 y., 4 m., 0 d <sup>6</sup>
	2nd	Oct. 23, 1873	Nov. 7, 1873	16	
3rd Parliament..	1st	Mar. 26, 1874	May 26, 1874	62	Jan. 22, 1874. <sup>3</sup> Feb. 21, 1874. <sup>4</sup> Aug. 17, 1878. <sup>5</sup> 4 y., 5 m., 25 d <sup>6</sup>
	2nd	Feb. 4, 1875	April 8, 1875	64	
	3rd	Feb. 10, 1876	April 12, 1876	63	
	4th	Feb. 8, 1877	April 28, 1877	80	
	5th	Feb. 7, 1878	May 10, 1878	93	
4th Parliament..	1st	Feb. 13, 1879	May 15, 1879	92	Sept. 17, 1878. <sup>3</sup> Nov. 21, 1878. <sup>4</sup> May 18, 1882. <sup>5</sup> 3 y., 5 m., 23 d <sup>6</sup>
	2nd	Feb. 12, 1880	May 7, 1880	86	
	3rd	Dec. 9, 1880	Mar. 21, 1881	103	
	4th	Feb. 9, 1882	May 17, 1882	98	

<sup>1</sup>Adjourned from 21st December, 1867, to 12th March, 1868, to allow the Local Legislatures to meet. <sup>2</sup>Adjourned 23rd May till 13th August. <sup>3</sup>Period of general elections. <sup>4</sup>Writs returnable. <sup>5</sup>Dissolution of Parliament. <sup>6</sup>Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive.

## ADMINISTRATION.

## 3.—Dominion Parliaments, 1867-1917—concluded.

Number of Parliaments.	Ses- sion.	Date of Opening.	Date of Prorogation.	Days of ses- sion.	Elections, writs returnable, dissolu- tions and length of Parliaments.
5th Parliament..	1st	Feb. 8, 1883	May 25, 1883	107	June 20, 1882. <sup>3</sup>
	2nd	Jan. 17, 1884	April 19, 1884	94	Aug. 7, 1882. <sup>4</sup>
	3rd	Jan. 29, 1885	July 20, 1885	173	Jan. 15, 1887. <sup>5</sup>
	4th	Feb. 25, 1886	June 2, 1886	98	4 y., 5 m., 10 d <sup>6</sup>
6th Parliament..	1st	April 13, 1887	June 23, 1887	72	Feb. 22, 1887. <sup>3</sup>
	2nd	Feb. 23, 1888	May 22, 1888	90	April 7, 1887. <sup>4</sup>
	3rd	Jan. 31, 1889	May 2, 1889	92	Feb. 3, 1891. <sup>5</sup>
	4th	Jan. 16, 1890	May 16, 1890	121	3 y., 9 m., 27 d <sup>6</sup>
7th Parliament..	1st	April 29, 1891	Sept. 30, 1891	155	March 5, 1891. <sup>3</sup> April 25, 1891. <sup>4</sup> April 24, 1896. <sup>5</sup> 5 y., 0 m., 0 d <sup>6</sup>
	2nd	Feb. 25, 1892	July 9, 1892	136	
	3rd	Jan. 26, 1893	April 1, 1893	66	
	4th	Mar. 15, 1894	July 23, 1894	131	
	5th	April 18, 1895	July 22, 1895	96	
	6th	Jan. 2, 1896	April 23, 1896	111	
8th Parliament..	1st	Aug. 19, 1896	Oct. 5, 1896	48	June 23, 1896. <sup>3</sup> July 13, 1896. <sup>4</sup> Oct. 9, 1900. <sup>5</sup> 4 y., 2 m., 26 d <sup>6</sup>
	2nd	Mar. 25, 1897	June 29, 1897	97	
	3rd	Feb. 3, 1898	June 13, 1898	131	
	4th	Mar. 16, 1899	Aug. 11, 1899	149	
	5th	Feb. 1, 1900	July 18, 1900	168	
9th Parliament..	1st	Feb. 6, 1901	May 23, 1901	107	Nov. 7, 1900. <sup>3</sup> Dec. 5, 1900. <sup>4</sup> Sept. 29, 1904. <sup>5</sup> 3 y., 9 m., 26 d <sup>6</sup>
	2nd	Feb. 13, 1902	May 15, 1902	90	
	3rd	Mar. 12, 1903	Oct. 24, 1903	227	
	4th	Mar. 10, 1904	Aug. 10, 1904	154	
10th Parliament..	1st	Jan. 11, 1905	July 20, 1905	191	Nov. 3, 1904. <sup>3</sup> Dec. 15, 1904. <sup>4</sup> Sept. 17, 1908. <sup>5</sup> 3 y., 9 m., 4 d <sup>6</sup>
	2nd	Mar. 8, 1906	July 13, 1906	128	
	3rd	Nov. 22, 1906	April 27, 1907	157	
	4th	Nov. 28, 1907	July 20, 1908	236	
11th Parliament..	1st	Jan. 20, 1909	May 19, 1909	120	Oct. 26, 1908. <sup>3</sup> Dec. 3, 1908. <sup>4</sup> July 29, 1911. <sup>5</sup> 2 y., 7 m., 28 d <sup>6</sup>
	2nd	Nov. 11, 1909	May 4, 1910	175	
	3rd	Nov. 7, 1910	July 29, 1911	196 <sup>7</sup>	
12th Parliament..	1st	Nov. 15, 1911	April 1, 1912	139	Sept. 21, 1911. <sup>3</sup> Oct. 7, 1911. <sup>4</sup> Oct. 6, 1917. <sup>5</sup> 6 y., 0 m., 0 d. <sup>6</sup>
	2nd	Nov. 21, 1912	June 6, 1913	173 <sup>8</sup>	
	3rd	Jan. 15, 1914	June 12, 1914	148	
	4th	Aug. 18, 1914	Aug. 22, 1914	5	
	5th	Feb. 4, 1915	April 15, 1915	71	
	6th	Jan. 13, 1916	May 18, 1916	127	
	7th	Jan. 18, 1917	Sept. 20, 1917	207 <sup>9</sup>	
13th Parliament..	1st	.....	.....	.....	Dec. 17, 1917. <sup>3</sup> Feb. 27, 1918. <sup>4</sup>

<sup>3</sup>Period of general elections. <sup>4</sup>Writs returnable. <sup>5</sup>Dissolution of Parliament. <sup>6</sup>Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive. <sup>7</sup>Not including days (59) of adjournment from May 19th to July 18th. <sup>8</sup>Not including days (25) of adjournment from Dec. 19th, 1912, to Jan. 14th, 1913. <sup>9</sup>Not including days (39) of adjournment from Feby. 7th to April 19th, 1917.

## DOMINION MINISTRIES.

## 4.—Dominion Ministries, 1896-1917.

Office.	Name.	Date of appointment.
Eighth Ministry. Premier and President of Council.....	Right Hon. Sir Wilfrid Laurier.....	July 11, 1896
Minister of Trade and Commerce.....	Right Hon. Sir Richard J. Cartwright	July 13, 1896
Secretary of State.....	Hon. R. W. Scott..... Hon. Charles Murphy.....	July 13, 1896 Oct. 10, 1908
Minister of Justice.....	Hon. Sir Oliver Mowat..... Hon. David Mills..... Hon. Charles Fitzpatrick..... Hon. Sir Allen B. Aylesworth.....	July 13, 1896 Nov. 18, 1897 Feb. 11, 1902 June 4, 1906
Minister of Marine and Fisheries.....	Hon. Sir Louis Henry Davies..... Hon. James Sutherland..... Hon. J. Raymond F. Préfontaine... Hon. Louis P. Brodeur <sup>1</sup> ..... Hon. Rodolphe Lemieux <sup>1</sup> .....	July 13, 1896 Jan. 15, 1902 Nov. 11, 1902 Feb. 6, 1906 Aug. 11, 1911
Minister of Militia and Defence.....	Hon. Sir Frederick W. Borden.....	July 13, 1896
Postmaster General.....	Hon. Sir William Mulock..... Hon. Allen B. Aylesworth..... Hon. Rodolphe Lemieux..... Hon. Henri S. Beland.....	July 13, 1896 Oct. 16, 1905 June 4, 1906 Aug. 11, 1911
Minister of Agriculture.....	Hon. Sydney A. Fisher.....	July 13, 1896
Minister of Public Works...	Hon. J. Israel Tarte..... Hon. James Sutherland..... Hon. Charles S. Hyman..... Hon. William Pugsley.....	July 13, 1896 Nov. 11, 1902 May 22, 1905 Sept. 13, 1907
Minister of Finance.....	Hon. William S. Fielding.....	July 13, 1896
Minister of Railways and Canals.....	Hon. Andrew G. Blair..... Hon. Henry R. Emmerson..... Hon. George P. Graham.....	July 13, 1896 Jan. 15, 1904 Sept. 13, 1907
Minister of Interior.....	Hon. Clifford Sifton..... Hon. Frank Oliver.....	Nov. 17, 1896 April 8, 1905
Minister of Customs.....	Hon. William Paterson.....	June 30, 1897
Minister of Inland Revenue.	Hon. Sir Henri G. Joly de Lotbinière. Hon. M. E. Bernier..... Hon. Louis P. Brodeur..... Hon. William Templeman.....	June 30, 1897 June 22, 1900 Jan. 19, 1904 Feb. 6, 1906

<sup>1</sup>Also Minister of Naval Service.



## ADMINISTRATION.

## 4.—Dominion Ministries, 1896-1917—con.

Office.	Name.	Date of appointment.
Eighth Ministry—con.		
Minister of Labour.....	Hon. William Lyon Mackenzie King.	June 2, 1909
Without portfolio.....	Hon. Richard R. Dobell.....	July 13, 1896
	Hon. C. A. Geoffrion.....	July 13, 1896
	Hon. James Sutherland.....	Sept. 30, 1899
	Hon. W. Templeman.....	Feb. 25, 1902
	Hon. Charles S. Hyman.....	Feb. 5, 1904
Not in the Cabinet.		
Solicitor-General.....	Hon. Charles Fitzpatrick.....	July 13, 1896
	Hon. Henry Carroll.....	Feb. 11, 1902
	Hon. Rodolphe Lemieux.....	Jan. 29, 1904
	Hon. Jacques Bureau.....	Feb. 14, 1907
Controller of Customs.....	Hon. William Paterson.....	July 13, 1896
Controller of Inland Revenue	Hon. Sir Henri G. Joly de Lotbinière.	July 13, 1896
Ninth Ministry.		
Premier and President of the Privy Council.....	Right Hon. Sir Robert Laird Borden.	Oct. 10, 1911
President of the Privy Council.....	Hon. Newton Wesley Rowell.....	Oct. 12, 1917
Minister of Trade and Commerce.....	Right Hon. Sir George Eulas Foster.	Oct. 10, 1911
Minister of Interior.....	Hon. Robert Rogers.....	Oct. 10, 1911
	Hon. William J. Roche.....	Oct. 29, 1912
	Hon. Arthur Meighen.....	Oct. 12, 1917
Minister of Public Works...	Hon. Frederick D. Monk.....	Oct. 10, 1911
	Hon. Robert Rogers.....	Oct. 29, 1912
	Hon. Charles C. Ballantyne.....	Oct. 3, 1917
	Hon. Frank B. Carvell.....	Oct. 13, 1917
Minister of Railways and Canals.....	Hon. Francis Cochrane.....	Oct. 10, 1911
	Hon. John D. Reid.....	Oct. 12, 1917
Minister of Finance.....	Hon. Sir William T. White.....	Oct. 10, 1911
Postmaster General.....	Hon. Louis P. Pelletier.....	Oct. 10, 1911
	Hon. Thomas C. Casgrain.....	Oct. 20, 1914
	Hon. Pierre E. Blondin.....	Jan. 8, 1917

## DOMINION MINISTRIES.

## 4.—Dominion Ministries, 1916-1917—concluded.

Office.	Name.	Date of of appointment.
Ninth Ministry—con.		
Minister of Marine and Fisheries and Naval Service...	Hon. John D. Hazen.....	Oct. 10, 1911
	Hon. Charles C. Ballantyne.....	Oct. 13, 1917
Minister of Justice.....	Hon. Charles J. Doherty.....	Oct. 10, 1911
Minister of Militia and Defence.....	Lieut.-Gen. the Hon. Sir Sam Hughes	Oct. 10, 1911
	Hon. Sir Albert Edward Kemp.....	Nov. 23, 1916
	Major-Gen. the Hon. Sydney C. Mewburn.....	Oct. 12, 1917
Minister of Overseas Forces for Canada in the United Kingdom.....	Hon. Sir George Hasley Perley.....	Oct. 31, 1916
	Hon. Sir Albert Edward Kemp.....	Oct. 12, 1917
Secretary of State.....	Hon. William J. Roche.....	Oct. 10, 1911
	Hon. Louis Coderre.....	Oct. 29, 1912
	Hon. Pierre E. Blondin <sup>1</sup> .....	Oct. 6, 1915
	Hon. Esioff L. Patenaude <sup>1</sup> .....	Jan. 8, 1917
	Hon. Arthur Meighen <sup>1</sup> .....	Aug. 25, 1917
	Hon. Martin Burrell <sup>1</sup> .....	Oct. 12, 1917
Minister of Labour.....	Hon. Thomas W. Crothers.....	Oct. 10, 1911
Minister of Immigration and Colonization.....	Hon. James A. Calder.....	Oct. 12, 1917
Minister of Inland Revenue.	Hon. Wilfrid B. Nantel.....	Oct. 10, 1911
	Hon. Pierre E. Blondin <sup>1</sup> .....	Oct. 20, 1914
	Hon. Esioff Leon Patenaude.....	Oct. 6, 1915
	Hon. Albert E. Sévigny.....	Jan. 8, 1917
Minister of Customs.....	Hon. John D. Reid.....	Oct. 10, 1911
	Hon. Arthur L. Sifton.....	Oct. 12, 1917
Minister of Agriculture.....	Hon. Martin Burrell.....	Oct. 10, 1911
	Hon. Thomas A. Crerar.....	Oct. 12, 1917
Ministers without portfolio..	Hon. Sir George H. Perley.....	Oct. 10, 1911
	Hon. Albert E. Kemp.....	Oct. 10, 1911
	Hon. Sir James A. Lougheed.....	Oct. 10, 1911
	Hon. Francis Cochrane.....	
	Hon. A. K. MacLean.....	Oct. 23, 1917
	Hon. G. D. Robertson.....	Oct. 23, 1917
Not in the Cabinet.		
Solicitor-General.....	Hon. Arthur Meighen.....	June 26, 1913
	Hon. Hugh Guthrie.....	Oct. 4, 1917
Parliamentary Secretary Militia and Defence.....	Franklin B. McCurdy.....	July 19, 1916
Parliamentary Under Secretary of State for External Affairs.....	Lieut.-Col. Hugh Clark.....	Oct. 21, 1916

<sup>1</sup>Also Minister of Mines.

NOTE.—A complete list of the Dominion Ministries from Confederation to 1913 appeared in the Year Book of 1912, pp. 422-429.

## ADMINISTRATION.

## 5.—Lieutenant-Governors of Provinces, 1867-1917.

## PRINCE EDWARD ISLAND.

Name.	Date of appointment.	Name.	Date of appointment.
W. C. F. Robinson.....	June 10, 1873	Geo. Wm. Howlan.....	Feb. 21, 1894
Sir Robert Hodgson.....	Nov. 22, 1873	P. A. MacIntyre.....	May 13, 1899
Sir Thomas H. Haviland	July 14, 1879	D. A. McKinnon.....	Oct. 3, 1904
Andrew Archibald		Benjamin Rogers.....	June 1, 1910
Macdonald	Aug. 1, 1884	A. C. Macdonald.....	June 2, 1915
Jedediah S. Carvell.....	Sept. 21, 1889		

## NOVA SCOTIA.

Lieut.-Gen. Sir W. F. Williams	July 1, 1867	Matthew Henry Richey.	July 4, 1883
Major-Gen. Sir C. Hastings Doyle	Oct. 18, 1867	A. W. McLelan.....	July 9, 1888
Lieut.-Gen. Sir C. Hastings Doyle	Jan. 31, 1868	Malachy Bowes Daly...	July 11, 1890
Sir E. Kenny (acting)...	May 31, 1870	Malachy Bowes Daly...	July 29, 1895
Joseph Howe.....	May 1, 1873	Alfred G. Jones.....	Aug. 7, 1900
A. G. Archibald.....	July 4, 1873	Duncan C. Fraser.....	Mar. 27, 1906
		James D. McGregor....	Oct. 18, 1910
		David MacKeen.....	Oct. 19, 1915
		McCallum Grant.....	Nov. 29, 1916

## NEW BRUNSWICK.

Major-Gen. Sir C. Hastings Doyle	July 1, 1867	John Boyd.....	Sept. 21, 1893
Col. F. P. Harding.....	Oct. 18, 1867	John A. Fraser.....	Dec. 20, 1893
L. A. Wilmot.....	July 14, 1868	A. R. McClelan.....	Dec. 9, 1896
Samuel Leonard Tilley..	Nov. 5, 1873	Jabez B. Snowball.....	Feb. 5, 1902
E. Baron Chandler.....	July 16, 1878	L. J. Tweedie.....	Mar. 2, 1907
Robert Duncan Wilmot..	Feb. 11, 1880	Josiah Wood.....	Mar. 6, 1912
Sir Sam'l Leonard Tilley.	Oct. 31, 1885	G. W. Ganong.....	June 29, 1916
		William Pugsley.....	Nov. 6, 1917

## QUEBEC.

Sir N. F. Belleau.....	July 1, 1867	Sir J. A. Chapleau.....	Dec. 5, 1892
Sir N. F. Belleau.....	Jan. 31, 1868	L. A. Jetté.....	Feb. 2, 1898
Réné Edouard Caron...	Feb. 11, 1873	L. A. Jetté.....	Feb. 2, 1903
Luc Letellier de St. Just.	Dec. 15, 1876	Sir Charles A. P. Pelletier	Sept. 4, 1908
Théodore Robitaille...	July 26, 1879	Sir Francois Langelier...	May 5, 1911
L. F. R. Masson.....	Nov. 7, 1884	Sir. Pierre E. Leblanc...	Feb. 9, 1915
A. R. Angers.....	Oct. 24, 1887		

## ONTARIO.

Major-Gen. H. W. Stisted.	July 1, 1867	George A. Kirkpatrick..	May 30, 1892
W. P. Howland.....	July 14, 1868	Sir Oliver Mowat.....	Nov. 18, 1897
John W. Crawford.....	Nov. 5, 1873	Sir William Mortimer	
D. A. Macdonald.....	May 18, 1875	Clark	April 20, 1903
John Beverly Robinson.	June 30, 1880	Sir John M. Gibson.....	Sept. 22, 1908
Sir Alexander Campbell.	Feb. 8, 1887	Lieut.-Col. Sir. John S. Hendrie	Sept. 26, 1914

## MANITOBA.

A. G. Archibald.....	May 20, 1870	J. C. Schultz.....	July 1, 1888
Francis Goodschall		J. C. Patterson.....	Sept. 2, 1895
Johnson	Apr. 9, 1872	Sir D. H. McMillan....	Oct. 16, 1900
Alexander Morris.....	Dec. 2, 1872	Sir D. H. McMillan....	May 11, 1906
Joseph Ed. Cauchon.....	Dec. 2, 1877	D. C. Cameron.....	Aug. 1, 1911
James C. Aikins.....	Sept. 22, 1882	Sir. James M. Aikins...	Aug. 3, 1916

<sup>1</sup>Second term.

## LIEUTENANT-GOVERNORS OF PROVINCES.

## 5.—Lieutenant-Governors of Provinces, 1867-1917—concluded.

## SASKATCHEWAN.

Name.	Date of appointment.	Name.	Date of appointment.
A. E. Forget.....	Sept. 1, 1905	Richard Stuart Lake.....	Oct. 6, 1915
Geo. W. Brown.....	Oct. 5, 1910		

## ALBERTA.

George H. V. Bulyea....	Sept. 1, 1905	Robert George Brett....	Oct. 6, 1915
George H. V. Bulyea....	<sup>1</sup> Oct. 5, 1910		

## BRITISH COLUMBIA.

J. W. Trutch.....	June 5, 1871	Sir Henri G. Joly de Lotbinière	June 21, 1900
Albert Norton Richards.	June 27, 1876	James Dunsmuir.....	May 11, 1906
Clement F. Cornwall....	June 21, 1881	T. W. Patterson.....	Dec. 3, 1909
Hugh Nelson.....	Feb. 7, 1887	Frank S. Barnard.....	Dec. 5, 1914
Edgar Dewdney.....	Nov. 1, 1892		
Thomas R. McInnes.....	Nov. 18, 1897		

## THE TERRITORIES.

A. G. Archibald.....	May 10, 1870	Joseph Royal.....	July 1, 1888
Francis Goodschall		C. H. Mackintosh.....	Oct. 31, 1893
Johnson	April 9, 1872	M. C. Cameron.....	May 30, 1898
Alexander Morris.....	Dec. 2, 1872	A. E. Forget.....	Oct. 11, 1898
David Laird, P.C.....	Oct. 7, 1876	A. E. Forget.....	<sup>1</sup> Mar. 30, 1904
Edgar Dewdney.....	Dec. 3, 1881		

<sup>1</sup>Second term.

## HONORARY ADVISORY COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH IN CANADA.

One of the most striking results of the great war is the sudden awakening of the English-speaking world to the importance of scientific and industrial research, and the realization by governments of the necessity of applying scientific research to the whole range of problems which present themselves in both war and peace.

With the declaration of war, the supplies of several classes of products for which Great Britain had come to rely almost exclusively upon Germany—in the manufacture of which that country had gradually secured a practical monopoly—were suddenly cut off. Some of these, such as dye stuffs, optical glass, etc., were of vital importance to certain of Great Britain's industries, which were very seriously threatened by the impossibility of securing adequate supplies of these necessary materials. Some of these materials were even needed for the manufacture of arms and munitions of war, and the necessity of making Great Britain independent of foreign countries, not only for the requirements of industry but also for the essentials of national defence, was thus made clear.

The Government of Great Britain, having been brought to a realization of these facts, appointed in July, 1915, a Committee of the Imperial Privy Council for Scientific and Industrial Research, with an Advisory Council composed of eight men distinguished in the world of science and industry "for the development of scientific and industrial research" applicable to the problems of war and the development of the industries of peace that follow the war.



## ADMINISTRATION.

The Government of Australia thereupon established "a Commonwealth Institute of Science and Industry" along similar lines. New Zealand and India also expressed a desire to co-operate with the Imperial Government in every possible way.

If, after the war, the industries and manufactures of Canada are to develop and expand in the face of the very vigorous competition which will grow up after the declaration of peace, it is necessary that our industrial and manufacturing operations shall be carried on with much more efficiency than has, as a general rule, characterized them in the past.

On June 6th, 1915, the Government of Canada appointed, therefore, a Sub-Committee of the Privy Council, consisting of the Minister of Trade and Commerce (Chairman) and the Ministers of the Interior, Agriculture, Mines, Inland Revenue and Labour, to devise and carry out measures to promote and assist scientific and industrial research, with a view to the fuller development of Canadian industries and production, in order that during and after the present war they may be in a position to supply all Canadian needs and to extend Canadian trade abroad.

Under this Sub-Committee of the Privy Council there was constituted, on November 29, 1915, an Honorary Advisory Council for Scientific and Industrial Research, composed of the following eleven members, representative of the scientific and industrial interests of Canada:—

A. B. MACALLUM, M.D., Ph.D., Sc.D., LL.D., F.R.S., Administrative Chairman, Ottawa.

F. D. ADAMS, Ph.D., Sc.D., LL.D., F.R.S., Dean, Faculty of Applied Science, McGill University, Montreal.

T. BIENVENU, Vice-President and General Manager, La Banque Provinciale du Canada, Montreal.

R. HOBSON, President, Steel Company of Canada, Hamilton, Ont.

S. F. KIRKPATRICK, M.Sc., Professor of Metallurgy, Queen's University, Kingston, Ont.

J. C. MCLENNAN, Ph.D., F.R.S., Professor of Physics and Director of the Physics Laboratory, University of Toronto, Toronto, Ont.

A. S. MACKENZIE, Ph.D., D.C.L., President, Dalhousie University, Halifax, N.S.

W. C. MURRAY, M.A., LL.D., President, University of Saskatchewan, Saskatoon, Sask.

R. A. ROSS, E.E. (Tor.), M. Can. Soc. C.E., Consulting Engineer, 80 St. François Xavier St., Montreal, Que.

R. F. RUTTAN, M.A., M.D., Sc.D., Professor of Chemistry, and Director of the Chemical Laboratories, McGill University, Montreal, Que.

ARTHUR SURVEYER, B.A.Sc., M. Can. Soc. C.E., Consulting Engineer, 274 Beaver Hall Hill, Montreal.

Secretary: J. B. CHALLIES, C.E. (Tor.), M. Can. Soc. C.E., Superintendent, Dominion Water-Power Branch, Department of the Interior, Ottawa.

This Advisory Council, by direction of the Chairman of the Committee of the Privy Council, has been charged with the following duties:—

(a) To ascertain and tabulate the various agencies in Canada which are now carrying on scientific and industrial research in the universities and colleges, in the various laboratories of the Government, in business organizations and industries, in scientific associations or by private or associated investigators.

(b) To note and schedule the lines of research or investigation that are being pursued by each such agency, their facilities and equipment therefor,

## SCIENTIFIC AND INDUSTRIAL RESEARCH.

the possibilities of extension and expansion, and particularly to ascertain the scientific man power available for research and the necessity of adding thereto.

(c) To co-ordinate these agencies so as to prevent overlapping of effort, to induce co-operation and team work, and to bring up a community of interest, knowledge and mutual helpfulness between each other.

(d) To make themselves acquainted with the problems of a technical and scientific nature that are met with by our productive and industrial interests, and to bring them into contact with the proper research agencies for solving these problems, and thus link up the resources of science with the labour and capital employed in production so as to bring about the best possible economic results.

(e) To make a scientific study of our common unused resources, the waste and by-products of our farms, forests, fisheries and industries, with a view to their utilization in new or subsidiary processes of manufacture and thus contributing to the wealth and employment of our people.

(f) To study the ways and means by which the present small number of competent and trained research men can be added to from the students and graduates of science in our universities and colleges, and to bring about in the common interest a more complete co-operation between the industrial and productive interests of the country and the teaching centres and forces of science and research.

(g) To inform and stimulate the public mind in regard to the importance and utility of applying the results of scientific and industrial research to the processes of production, by means of addresses to business and industrial bodies, by the publication of bulletins and monographs, and such other methods as may seem advisable.

In pursuance of the work with which it has been charged, the Council, in order to develop in Canada a body of men who have been thoroughly trained in science and its application to industry,—such as that which has aided so greatly in the industrial development of Germany in recent years—has recommended to the Government the establishment of twenty or more studentships and fellowships in Canadian universities and technical schools, to be given to men who have completed their regular course of study and have displayed a special aptitude for scientific research. These will enable such men to pursue a course of advanced work for a further period and thus acquire a practical training in the methods and conduct of research. Arrangements are also contemplated whereby students will be placed in one or other of the great manufacturing establishments of the Dominion, where they will continue their training under the conditions of actual commercial practice.

For the purpose of making a complete census or inventory of all work in scientific and industrial research which is being carried on in the Dominion at the present time by all the agencies now at work, and also for the purpose of ascertaining the various lines and directions in which the application of research was most necessary and might be made most fruitful in the development of our industries and manufactures, the Council in the spring of 1917 issued questionnaires to all the universities, Government departments and technical societies, as well as to all Canadian manufacturers, asking for specific information on the various subjects which come within the purview of the Council. In the distribution and in the collection of proper returns from these questionnaires the Council has received the active, energetic and sympathetic assistance of the engineering and the various technical societies of the Dominion, as well as of the Canadian Manufacturers' Association.

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The Council has also enlisted the close co-operation of all the Government departments, both federal and provincial, for the purpose of correlating and rendering more easily accessible the wealth of information concerning the natural resources of the Dominion which lie stored in the Government archives and reports.

In addition to this broad and general work, which looks toward the establishment of a substantial basis for the further development of the industries of the Dominion in the immediate future, the Council has examined carefully a large number of specific projects which have been submitted to it, and has approved of certain of these which appear to give promise of valuable results.

They have decided to recommend that two of these projects be at once taken up and work be started upon them immediately. The first has for its object the provision of an adequate supply of good fuel for the Western Plains, more especially in the provinces of Saskatchewan and Manitoba. There are in the former province large supplies of lignite. This is an inferior fuel possessing a relatively low heating power and which, furthermore, will not stand shipment and storage. It is, therefore, of comparatively little value for domestic or manufacturing purposes. The Council, however, believes that by a special treatment there may be produced from this lignite two grades of high class briquetted fuel, one similar to anthracite or hard coal in character, and the other resembling soft coal in general character, and that at the same time certain valuable bye-products may be secured. The Department of Mines and the Commission of Conservation have already carried out a good deal of investigation in connection with this problem, and the former Department is now making some further studies for the Council. If they give satisfactory results, the Council will advise that a plant to turn out this high grade fuel on a commercial scale be erected, and the possibility of producing this fuel at a cost considerably lower than that at which coal from the United States is now laid down in Manitoba and Saskatchewan be demonstrated on a large scale, the coal being actually placed on the market. With an abundant supply of good cheap fuel the conditions of life on the great plains in winter will be much improved.

The other project has to do with the preservation of the forests of eastern Canada. These, contrary to the opinion which prevails generally, are not inexhaustible. They have already been seriously depleted and are rapidly deteriorating in character. In most of the leading countries of Europe the forests, whether owned by the Government or by private interests, have, by the application of modern scientific knowledge, been immensely improved in character, and, instead of being plundered and then abandoned, have been converted into assets of enormous national value, and year by year yield large revenues to the Government, or to their private owners, which are as regular and as continuous as those from any other gilt-edged investment, the forest all the time being maintained with its capital unimpaired.

Different methods of forest management have been adopted in different parts of Europe to secure this most desirable result. The Canadian forests present special problems of their own. The Council has recommended that the necessary means be provided in order to



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enable the Forestry Branch of the Department of the Interior to carry out certain investigations for the purpose of ascertaining which of these methods can best be applied to the Canadian forests with a view to stopping the destruction which now threatens them, and of making these forests a great and permanent source of wealth to the people of the Dominion.

Many other projects and many additional lines of work are under consideration by the Council, but these require further examination before the Council is in a position to decide what action should be taken with reference to them.

The Research Council Act of the Dominion Parliament (7-8 Geo. V, c. 20), which was assented to on August 29, 1917, gave statutory authority to the constitution of the Council under the Sub-Committee of the Privy Council on Industrial and Scientific Research.

## PUBLIC LANDS.

**Dominion Lands.**—The Crown lands of the Dominion of Canada are situated in the Prairie Provinces and in the Railway Belt of British Columbia. Of these lands large areas are offered in free grants as homesteads for settlers<sup>1</sup>. The lands are laid out in townships of 36 sections. Each section contains 640 acres and is divided into quarter sections of 160 acres. A quarter section of 160 acres may be obtained by a settler on payment of an entry fee of \$10 and fulfilment of certain conditions of residence and cultivation. To qualify for the issue of the patent for his homestead a settler must have resided upon his homestead for at least six months in each of three years, must have erected a habitable house thereon, must have at least 30 acres of his holding broken of which 20 acres must be cropped, and must be a British subject.

**Disposal of Dominion Lands in Manitoba, Saskatchewan and Alberta.**—According to figures supplied by the Department of the Interior, a total area of 139,148,956 acres, equal to 6,039 townships, or 217,420 square miles, has been alienated from the Crown. The total number of acres surveyed to January 1, 1917, was 220,215,856 and of this area there remain for disposal 61,066,900 acres, of which 3,931,500 acres are under timber licenses, 5,398,800 acres are under grazing leases, 25,615,500 acres are under forest reserves and parks and 26,121,100 acres are now available for homestead entry.

In addition to the surveyed area, there are large tracts of land in the northern parts of these three provinces which have, as yet, been explored only in a very partial way. The total area of this unsurveyed tract is 285,426,842 acres, of which 22,616,262 acres are water-covered.

**Railway Lands.**—Table 6 is a record for the three fiscal years 1914 to 1916 of the sales of lands by the Hudson's Bay Company and by railway companies having government land grants. The total sales in 1915-16 amounted to \$5,435,949 for 354,886 acres, as compared with \$3,279,031 for 192,801 acres in 1914-15.

<sup>1</sup>Copies of the detailed Regulations for the granting of free homesteads are obtainable from the Commissioner of Dominion Lands, Department of the Interior, Ottawa.



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## 6.—Land Sales by Railway Companies having Government Land Grants, and by the Hudson's Bay Company, in the fiscal years 1914-1916.

Companies.	1914.		1915.		1916.	
	Acres.	Amount.	Acres.	Amount.	Acres.	Amount.
		\$		\$		\$
Hudson's Bay Co.....	26,292	572,837	16,400	306,550	79,310	1,273,144
Canadian Pacific Ry. ...	263,962	4,242,089	151,262	2,496,872	242,215	3,670,421
Manitoba Southwestern Colonization Ry.....	7,626	91,948	489	5,508	4,780	58,808
Qu'Appelle, Long Lake and Saskatchewan Ry. & Steamboat Co.....	1,629	21,546	1,292	19,118	12,246	180,361
Calgary and Edmonton Ry. Co.....	19,575	460,129	23,042	444,018	11,689	172,033
Canadian Northern Ry. Co.....	182,491	2,009,642	—	—	—	—
Great Northwest Central Ry. Co.....	—	—	316	6,965	4,646	81,182
<b>Total</b> .....	<b>501,575</b>	<b>7,398,191</b>	<b>192,501</b>	<b>3,279,031</b>	<b>354,886</b>	<b>5,435,949</b>

**Homestead Entries.**—In 1916, the total number of ordinary homestead entries for lands of the Dominion Government was 12,568, as compared with 17,532 in 1915, 25,623 in 1914 and 31,499 in 1913. In 1916, 2,616 entries were made in Manitoba against 4,113 in 1915, 4,252 in 1914 and 2,998 in 1913; 4,519 in Saskatchewan against 6,349 in 1915, 9,752 in 1914 and 14,524 in 1913; 5,169 in Alberta against 6,584 in 1915, 10,722 in 1914, 12,122 in 1913; and 264 in British Columbia against 486 in 1915, 847 in 1914 and 1,855 in 1913. The number of pre-emptions under the Dominion Lands Act was 1,566 in 1916 (1,082 in Saskatchewan and 484 in Alberta) against 2,210 in 1915 (1,648 in Saskatchewan and 562 in Alberta). The number of purchased homesteads under the Act was 271 in 1916 (169 in Saskatchewan and 102 in Alberta) against 285 in 1915 (197 in Saskatchewan and 88 in Alberta).

**Provincial Public Lands.**—In the Maritime Provinces, in Quebec and in Ontario the public lands are administered by the Provincial Governments.<sup>1</sup> In Prince Edward Island all the land is settled. In Nova Scotia there are now no free grants of land; but under conditions prescribed by the Crown Lands Act of the Provincial Assembly (10 Edw. VII, 1910, c. 4, s. 26) and an amending Act of May 3, 1912, Crown lands, not exceeding in each case 150 acres, may be granted for agricultural or grazing purposes to applicants of not less than 18 years of age at the price of \$1 per acre, in addition to the expenses of survey. Leases and grants of Crown lands may also be obtained upon conditions

<sup>1</sup>For copies of the detailed regulations governing the disposal of provincial crown lands, application should be made as follows: Nova Scotia, to the Secretary for Industries and Immigration, Halifax; New Brunswick, to the Deputy Minister of Lands and Mines, Fredericton; Quebec, to the Deputy Minister of Lands and Forests, Quebec; Ontario, to the Deputy Minister of Lands, Forests and Mines, Toronto.

## PUBLIC LANDS.

prescribed. The total area of the Crown lands in Nova Scotia is approximately 895,552 acres. All returned soldiers possessing the necessary qualifications who wish to go on the land will be given the benefits of the Act for the Encouragement of Settlement on Farm Lands. By means of this measure a loan will be granted to the settler of 80 p.c. of the appraised value of the property selected for him. A mortgage will be taken on the property purchased by the settler, and repayments arranged for on the amortization principle over a period of years.

The area of the Crown lands in New Brunswick is about 7,250,000 acres. Probably not more than one-quarter of this area is suitable for agriculture. Under the provisions of Acts of the New Brunswick Legislative Assembly, lots of 100 acres each may be granted to settlers of 18 years of age and over, subject to conditions which include the clearance and cultivation of ten acres, the building of a house, three years' residence on the lot and payments or labour in aid of the construction of roads and bridges. The Government of New Brunswick have commenced a survey with a view to the separation of agricultural lands from those suitable only for timber and to the opening up of homestead lands through which roads will be built, assisted by the province.

In the province of Quebec the area of public lands subdivided and unsold on June 30, 1915, was 7,022,254 acres. During the year ended June 30, 1916, 339,725 acres were surveyed; 103,658 acres reverted to the Crown; 207,380 acres were sold, the receipts, including arrears, being \$75,703; and 150 acres were granted free for religious purposes and for colonization roads. Adding to the acreage available at June 30, 1915, the areas surveyed and the areas that reverted and deducting sales and grants, there remained subdivided and unsold on June 30, 1916, 7,258,107 acres. The average price of the areas sold was about 36 cents per acre. Agricultural lands in 100 acre lots are available for settlement upon prescribed conditions in Timiskaming (3,500,000 acres) at the price of about 30 cents per acre, in Abitibi (3,000,000 acres) at the price of about 30 cents per acre and in Beauce (50,000 to 60,000 acres) at the price of from 30 to 40 cents per acre.

In Ontario the public lands which are open for disposal are chiefly situated in the districts of Muskoka, Parry Sound, Nipissing, Sudbury, Algoma, Timiskaming, Thunder Bay, Kenora and Rainy River, and in the counties of Haliburton, Peterborough, Hastings, Frontenac, Lennox and Addington and Renfrew. In northern Ontario, which comprises the territory lying north and west of the Ottawa and French rivers, the townships open for sale are subdivided into lots of 320 acres, or sections of 640 acres, and a half lot or quarter section of 160 acres is allowed to each applicant at the price of 50 cents per acre, payable one-fourth cash and the balance in three annual instalments with interest at six p.c. The applicant must be a male (or sole female) head of a family, or a single man over 18 years of age. The conditions of purchase include occupation by the purchaser within six months from date of purchase, the erection of a house, the clearance and cultivation of at least ten p.c. of the area and three years' residence. Proxy regulations enable an individual to purchase a half lot of 160 acres and place an agent in residence, but the duties to be performed before issue of patent

## ADMINISTRATION.

are double those required in ordinary purchases. Free grants and homesteads are available on lands within the districts of Algoma, Nipissing, Thunder Bay, Sudbury, Rainy River and Kenora, and between the Ottawa river and the Georgian bay, comprising portions of the counties of Renfrew, Frontenac, Addington, Hastings, Peterborough and Haliburton and the districts of Muskoka and Parry sound. Grants of 160 acres are made to either single or married men in free grant territories where the land is subdivided in sections of 320 acres. In the Huron and Ottawa territory an allowance for waste lands may increase the grant of a single man to an area not exceeding 200 acres, while heads of families may secure 200 acres free and purchase an additional 100 acres at fifty cents an acre. The settlement duties for free grants are as follows: (a) at least fifteen acres to be cleared and brought under cultivation, of which two acres at least are to be cleared and cultivated annually during the three years; (b) a habitable house to be built at least sixteen by twenty feet in size; (c) actual and continuous residence upon and cultivation of the land for three years after location and thence to the issue of the patent. The mines and minerals and all timber other than pine, and in some cases the pine, are covered by the patent.

Ranching lands of prospective quality may be obtained on reasonable terms in waste and wooded areas, the valley of the Trent river lying between lake Ontario and the Georgian bay affording good opportunities for cattle and sheep raising.

Ontario includes 230,000,000 acres of land, of which only 13,500,000 acres are under cultivation. More than 20,000,000 acres of the very finest arable land await the plough. Ontario is three and a half times as large as the British Isles; one and a half times as large as Texas. From east to west its borders are 1,000 miles apart, and from north to south 1,075 miles. Recent railway construction and colonization road building have made accessible vast tracts of untilled farm land and virgin forests in northern Ontario.

Loans are made to settlers in the northern and northwestern districts of Ontario. The maximum amount of any loan to be made to a settler is \$500, with interest at six p.c. per annum, upon such terms and conditions as the Loan Commissioner may approve. The Government of Ontario is anxious that all bonâ fide settlers shall take full advantage of the opportunity provided to secure any needed loan, and full information with respect to same may be secured on application to the various Crown Lands Agents, or direct from the Settlers Loan Commissioner, Parliament Buildings, Toronto.

All returned soldiers who wish to go upon the land and are desirous of obtaining practical instruction in farming and of learning something of the conditions in northern Ontario, will be sent to an agricultural training depot now being established on the Government Experimental Farm at Monteith. Those desiring to practise fruit farming and chicken raising will be given free instruction at the public institutions of the province. As soon as a soldier wishes to go upon a farm and work for himself, an eighty-acre lot with a ten-acre clearing will be allotted to him. He will be supplied with the necessary machinery and tools, and such



## PUBLIC LANDS.

cattle, pigs, poultry, etc., as competent authority may determine, up to the value of \$500. The lien will be repayable in 20 years at six p.c., but no payment on account of either principal or interest will be required until after the expiration of three years. At the expiration of five years from the settler locating upon his land, and upon due performance of certain conditions in the meantime, he will be entitled to receive a patent from the Crown<sup>1</sup>.

In British Columbia there are large areas of free grant land. Any British subject being the head of a family, a widow, a femme sole who is over eighteen years of age and self-supporting, a woman deserted by her husband, a woman whose husband has not contributed to her support for two years, a bachelor over eighteen years, or any alien on his making a declaration of his intention to become a British subject, may pre-empt free 160 acres out of the unoccupied and unreserved Crown lands, not being an Indian settlement. The fees payable include \$2 for recording, \$2 for certificate of improvement and \$10 for the Crown grant. Of the total area of the province, approximately 200,000,000 acres are vacant, and 90,000,000 acres of vacant lands have been placed in reserve against sale, but are open to settlement by pre-emption. It is the practice to continue surveys each year of the lands most favourable to settlement, and at the close of the year 1915 there were vacant and available 2,400,000 acres surveyed for settlers.

The Government of British Columbia has announced its intention to improve large areas of public lands within the province and to sell them to actual farmers. Under Section 45 of the Land Settlement and Development Act, 1917, every returned soldier of British Columbia, irrespective of rank, who purchases land will be entitled to an abatement on the purchase price to the amount of \$500. This abatement is applicable only to the first purchase of land by the returned soldier, and the title to the land is subject to the fulfilment of prescribed conditions. For the purposes of the section a "returned soldier" means any person who, having theretofore resided in the province, has at any time during the present war served overseas or who may at any time during the present war serve overseas as a sailor, soldier, chaplain, surgeon, or nurse, or in any other capacity in the naval or military forces of Canada, or in any other of His Majesty's naval or military forces, and who, having been honourably discharged from the service, has returned to the province. The widow of a soldier who has died in service will be entitled to the rights of a returned soldier under the section.

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<sup>1</sup>Further particulars may be obtained on application to the Minister of Lands, Forests and Mines, Parliament Buildings, Toronto, Ont.



## ADMINISTRATION.

7.—Homestead Entries in Manitoba, Saskatchewan, Alberta and British Columbia,  
by Nationalities, made during the Fiscal Years 1911-1916.

Nationalities.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.
Canadians from Ontario.....	4,438	3,152	2,223	2,996	2,009	1,885
“ Quebec.....	1,101	951	790	883	648	505
“ Nova Scotia.....	237	182	143	258	196	137
“ New Brunswick..	140	118	101	182	117	82
“ Prince Edward Island.....	68	69	55	105	60	54
“ Manitoba.....	1,495	998	853	889	1,032	1,137
“ Saskatchewan....	4,061	3,085	2,323	709	383	280
“ Alberta.....	980	863	906	551	434	310
“ British Columbia	136	123	57	104	76	63
Persons who had previous entry...	1,834	2,132	3,669	4,411	3,639	3,779
Newfoundlanders.....	7	6	7	6	15	14
Canadians returned from the United States.....	553	401	180	121	48	19
Americans.....	12,485	10,577	8,895	7,172	4,286	2,416
English.....	6,161	5,739	4,452	3,894	2,974	2,374
Scotch.....	1,291	1,041	836	966	800	700
Irish.....	492	476	307	400	363	314
French.....	376	437	344	343	251	111
Belgians.....	133	159	163	143	109	103
Swiss.....	74	80	86	91	83	37
Italians.....	68	45	61	96	108	100
Rumanians.....	175	141	88	82	38	40
Syrians.....	64	56	51	29	16	5
Germans.....	845	790	772	887	474	170
Austro-Hungarians.....	2,804	3,121	2,280	2,516	2,879	1,745
Dutch.....	201	153	129	143	104	50
Danes (other than Icelanders)....	206	201	203	245	149	100
Icelanders.....	96	69	57	50	70	74
Swedes.....	937	964	939	842	628	342
Norwegians.....	1,092	1,160	1,148	1,062	645	309
Russians (other than Mennonites and Doukhobors).....	1,858	1,781	1,462	1,586	1,332	719
Mennonites.....	6	—	—	—	—	—
Chinese.....	5	8	12	5	3	4
Japanese.....	3	6	9	3	7	2
Persians.....	9	3	—	—	2	—
Australians.....	10	13	24	13	4	4
New Zealanders.....	6	12	5	6	3	2
Greeks.....	13	3	3	2	20	3
Hindus.....	4	11	5	4	5	4
Bulgarians.....	—	5	22	7	5	4
Serbians.....	3	4	4	4	4	4
Spaniards.....	2	—	1	—	7	—
Turks.....	7	9	7	5	8	4
Hebrews.....	—	—	1	6	45	6
Other nationalities.....	3	7	26	12	9	19
<b>Total.....</b>	<b>44,479</b>	<b>39,151</b>	<b>33,699</b>	<b>31,829</b>	<b>24,088</b>	<b>17,030</b>

## HOMESTEAD ENTRIES.

8.—Receipts of Patents and Homestead Entries in the fiscal years 1912-1916.

Sources of receipts.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Homestead fees.....	391,703	337,055	317,412	238,295	170,350
Cash sales.....	1,967,183	1,650,492	1,279,224	691,123	1,073,970
Scrip sales.....	3,257	6,157	240	80	-
Timber dues.....	400,669	463,739	378,365	310,934	378,961
Hay permits, mining, stone quarries, etc., cash.....	729,240	781,283	889,863	1,600,455	493,281
All other receipts.....	485,985	416,476	448,716	335,964	327,078
Gross revenue.....	3,978,037	3,655,202	3,313,820	3,176,851	2,443,640
Refunds.....	197,631	246,106	277,309	317,765	143,943
Net revenue.....	3,780,406	3,409,096	3,036,511	2,859,086	2,299,697
Total revenue, 1872-1916..	39,174,066	42,583,162	45,619,673	48,478,759	50,778,457
Letters patent for Dominion lands..... NO.	19,354	24,965	31,053	24,260	18,989
Homestead entries..... "	39,151	33,699	31,829	24,088	17,030

## DEPARTMENT OF THE SECRETARY OF STATE.

**Charters of Incorporation.**—The number of companies incorporated under The Companies Act during the fiscal year 1916-17 was 606, with a total capitalization of \$207,967,810, and the number of existing companies to which supplementary letters patent were issued was 77, of which 36 increased their capital stock by \$26,540,000 and 3 decreased their capital stock by \$5,050,000. The remaining 38 were granted supplementary letters patent for various objects, such as changing names, extending powers, etc., making a total of 683 charters and supplementary charters issued during the year; this is an increase of 78 as compared with the previous year. The total capitalization of new companies and the increased capital of existing companies amounted to \$229,457,810.

## ADMINISTRATION.

**Canada Temperance Act.**—The Act prohibits the sale of intoxicating liquors in the places that have adopted it, and is administered by the Department of the Secretary of State. Since April 1, 1916, the Act has been brought into force in the counties of Perth, Ontario, and Stanstead and Brome, Quebec. It has been repealed in the counties of Queen and Shelburne, N.S., and in the counties of Sudbury and Charlotte, and in the City of Fredericton, N.B. Elections have also taken place in the counties of Missisquoi and Compton and city of Quebec, P.Q., resulting in the carrying of the Act, which will come into force on May 1, 1918. Petitions have also been received from the counties of Carleton, Northumberland and York, N.B., asking for a vote on the repeal of the Act. During the 1917 Session of Parliament, provision was made for the repeal of the Act by Order-in-Council without a vote, and further repeals will probably be effected accordingly. The purpose of the repeal Act in New Brunswick counties is to make way for the Provincial prohibition law. The Act is now (October, 1917) in force in the following places: Ontario: Counties of Peel, Huron and Perth and district of Manitoulin; Quebec: City of Thetford Mines and counties of Stanstead and Brome; Nova Scotia: counties of Digby, Guysborough, and Yarmouth; New Brunswick: Counties of Albert, Carleton, Kings, Northumberland, Queens, Westmorland and York, Manitoba: Lisgar and Marquette.

**Naturalizations.**—The naturalizations effected under the Naturalization Act (R. S. 1906, c. 77), for the 12 months ended June 30, 1916, numbered 9,767. Of these 4,326 were formerly citizens of the United States. Table 9 shows by principal nationalities the number of naturalizations effected in Canada during the years 1907 to 1915 under the Act.

9.—Number of Naturalizations in Canada by Principal Nationalities during the Calendar years 1907-1915.

Nationalities.	1907 <sup>1</sup> .	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	Total 1907-15.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Austrians...	1,915	3,982	1,588	1,902	3,833	2,030	2,766	7,128	1,810	26,954
Belgians....	129	318	205	191	350	152	288	380	250	2,263
Chinese.....	283	355	241	78	180	136	173	69	135	1,650
Danes.....	124	146	154	92	169	158	201	290	201	1,535
Dutch.....	34	78	65	85	136	81	178	219	133	1,009
Finns.....	122	328	231	328	534	1,259	884	835	219	4,740
French.....	256	652	344	397	534	346	359	588	216	3,692
Galicians....	807	1,083	512	686	818	295	406	1,024	183	5,814
Germans....	319	585	293	333	484	344	539	1,070	326	4,293
Greeks.....	60	83	96	63	268	205	233	224	199	1,431
Hungarians..	279	580	164	254	395	217	214	392	129	2,624
Icelanders..	238	187	68	114	67	34	53	149	40	950
Italians.....	891	1,852	866	813	2,009	1,598	3,162	3,221	1,592	16,004
Japanese....	306	439	341	306	229	161	292	1,120	561	3,755
Norwegians..	352	444	399	429	597	653	1,074	1,180	641	5,769

## NATURALIZATIONS.

## 9.—Number of Naturalizations in Canada by Principal Nationalities during the Calendar years 1907-1915—concluded.

Nationalities.	1907 <sup>1</sup> .	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	Total 1907-15.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Poles.....	62	75	51	102	98	31	68	77	29	593
Rumanians....	499	271	184	278	442	184	278	344	168	2,648
Russians.....	2,127	3,046	1,944	2,865	2,787	1,586	3,696	5,737	2,418	26,206
Swedes.....	674	905	623	516	844	845	1,752	1,693	690	8,542
Swiss.....	37	81	44	45	67	46	69	145	95	629
Syrians.....	152	221	162	140	204	176	185	95	30	1,365
Turks.....	104	59	92	95	236	252	226	501	79	1,644
U. S. of America..	7,279	9,000	7,266	5,854	8,021	6,890	11,339	8,056	5,301	69,006
Other nationalities	450	246	123	186	301	263	335	328	174	2,406
Re-admission.....	215	715	294	196	505	300	348	214	139	2,926
<b>Total..</b>	<b>17,714</b>	<b>25,731</b>	<b>16,350</b>	<b>16,348</b>	<b>24,108</b>	<b>18,242</b>	<b>29,118</b>	<b>35,079</b>	<b>15,758</b>	<b>198,448</b>

<sup>1</sup>For eighteen months.

## INDIAN AFFAIRS.

**Department of Indian Affairs.**—By section 5 of the British North America Act, 1867, the Indians of Canada and the lands reserved for them came under the control of the Dominion Government, and in 1873 an Act of the Canadian Parliament (R.S., c. 81) provided that the Minister of the Interior should be Superintendent General of Indian Affairs and as such have the control and management of the lands and property of the Indians in Canada. The aim of the Department of Indian Affairs is the advancement of the Indians in the arts of civilization, and Agents have been appointed to encourage the Indians under their charge to settle on the reserves and to engage in industrial pursuits.

Tables 10-19, compiled from the Reports of the Department, give for the years named particulars respecting population, religion, education, agriculture and financial status. Table 10 shows that during the year 1916 crops to the value of \$2,246,507 were raised by the Indians, as compared with \$1,813,619 in 1915. Educational advantages are provided for the Indians in day, boarding and industrial schools, and for educational purposes appropriations were made by Parliament for the year 1917-18 amounting to \$734,115. Several bands of Indians assist, and during the fiscal year 1915-16 the sum of \$27,975 was available from this source. As shown in Table 13 the total number of Indian children enrolled as attending school during the fiscal year 1916 was 12,799, and the average attendance was 8,070.

The total parliamentary appropriation for the Indian Department for the year 1917-18 is \$1,741,960. On March 31, 1916, the Indians had to the credit of their trust funds \$8,444,067, derived from sales of lands and timber and from rentals of grazing and other lands. The amount named represents an increase of \$705,921 over that of the preceding year.



## ADMINISTRATION.

## 10.—Indian Population in Canada by Provinces, 1911-1917.

Provinces.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
Prince Edward Isl'd	292	300	292	288	288	302	292
Nova Scotia.....	2,026	1,969	2,018	2,050	2,042	2,119	2,031
New Brunswick....	1,802	1,903	1,920	1,906	1,862	1,874	1,846
Quebec.....	11,462	12,817	12,842	12,935	13,174	13,348	13,366
Ontario.....	22,496	26,393	26,077	26,419	26,162	26,305	26,411
Manitoba.....	6,104	10,373	10,822	10,290	10,798	11,935	11,583
Saskatchewan.....	9,439	9,545	9,699	9,779	9,775	9,962	10,646
Alberta.....	8,088	8,113	8,229	8,281	8,500	8,682	8,837
British Columbia..	24,581	24,781	25,172	25,370	25,339	25,737	25,694
Yukon.....	3,500	3,500	1,389	1,528	1,528	1,528	1,528
Northwest Territories.....	13,871	5,262	8,030	4,928	4,003	3,769	3,764
Indians in Canada	103,661	104,956	106,490	103,774	103,531	105,561	105,998
Eskimos.....	4,600	4,600	3,447	3,447	3,447	3,296	3,296

## 11.—Distribution of Indian Population by Age, Sex and Province, with Births and Deaths by Provinces, 1916.

Provinces.	Under 6 years.		5 to 15 years.		16 to 20 years.	
	Males.	Females.	Males.	Females.	Males.	Females.
Prince Edward Island.....	26	28	36	32	17	18
Nova Scotia.....	159	222	242	229	132	139
New Brunswick.....	160	153	156	162	77	62
Quebec.....	929	1,003	885	923	572	541
Ontario.....	1,779	1,728	2,214	2,118	1,474	1,372
Manitoba.....	1,125	1,166	1,227	1,109	922	791
Saskatchewan.....	841	882	765	700	336	335
Alberta.....	573	622	527	469	338	310
British Columbia.....	1,942	1,818	2,201	2,150	1,301	1,324
Northwest Territories.....	134	133	206	196	78	64
Total.....	7,668	7,755	8,459	8,088	5,247	4,956

Provinces.	21 to 65 years.		65 years upwards.		Births.	Deaths.
	Males.	Females.	Males.	Females.		
Prince Edward Island.....	61	56	15	13	6	—
Nova Scotia.....	438	403	88	67	59	64
New Brunswick.....	316	314	59	39	67	38
Quebec.....	1,950	1,934	256	241	312	164
Ontario.....	5,174	5,339	470	502	785	524
Manitoba.....	2,113	2,369	317	391	493	369
Saskatchewan.....	1,493	1,612	221	316	463	329
Alberta.....	1,249	1,276	56	111	349	251
British Columbia.....	5,445	5,363	512	578	649	570
Northwest Territories.....	370	379	50	48	100	64
Total.....	18,609	19,045	2,044	2,306	3,313	2,373

NOTE.—There are no official returns for the ages of 21,384 Indians.

## INDIAN POPULATION.

## 12.—Religion of Indian Population by Provinces as at March 31, 1916.

Provinces.	Angli- can.	Pres- byte- rian.	Metho- dist.	Roman Catho- lic.	Baptist.	Other Chris- tian Beliefs.	Aborig- inal Beliefs.
P. E. Island.....	—	—	—	302	—	—	—
Nova Scotia.....	15	—	—	2,093	10	1	—
New Brunswick.....	—	—	—	1,874	—	—	—
Quebec.....	121	7	453	8,633	—	20	—
Ontario.....	6,433	23	4,517	6,806	1,180	516	2,695
Manitoba.....	3,991	551	3,131	1,973	138	432	1,314
Saskatchewan.....	1,816	760	82	3,024	—	94	1,725
Alberta.....	792	—	1,550	2,096	—	—	1,093
British Columbia.....	4,459	571	3,047	12,883	—	345	1,379
N.W. Territories.....	307	—	—	1,351	—	—	—
Yukon.....	915	—	—	100	—	—	—
<b>Total.....</b>	<b>18,849</b>	<b>1,912</b>	<b>12,780</b>	<b>41,135</b>	<b>1,328</b>	<b>1,408</b>	<b>8,206</b>

NOTE.—There are no official returns for the religious belief of 19,943 Indians.

## 13.—Attendance of Pupils at Indian Schools by Provinces, 1916.

Provinces.	Number of Pupils on Roll.			Average Attend- ance.	Percent- age of attend- ance.
	Boys.	Girls.	Total.		
Prince Edward Island.....	24	24	48	23	47.91
Nova Scotia.....	157	141	298	137	45.97
New Brunswick.....	134	151	285	174	61.05
Quebec.....	609	647	1,256	802	63.85
Ontario.....	1,881	1,753	3,634	2,083	57.59
Manitoba.....	1,036	989	2,025	1,227	60.59
Saskatchewan.....	671	725	1,396	1,057	75.71
Alberta.....	515	437	952	800	84.03
British Columbia.....	1,296	1,218	2,514	1,528	60.78
Yukon.....	94	58	152	63	41.44
Northwest Territories.....	111	128	239	176	73.64
<b>Total.....</b>	<b>6,528</b>	<b>6,271</b>	<b>12,799</b>	<b>8,070</b>	<b>63.05</b>

## 14.—Literacy of Indian Population by Provinces, 1916.

Provinces.	Number who speak English.	Number who speak French.	Number who write English.	Number who write French.
Prince Edward Island.....	189	1	139	1
Nova Scotia.....	1,804	10	779	3
New Brunswick.....	1,323	83	493	14
Quebec.....	3,761	2,432	1,531	944
Ontario.....	14,509	1,370	8,909	82
Manitoba.....	4,148	103	1,946	7
Saskatchewan.....	2,444	268	1,840	17
Alberta.....	1,052	67	792	9
British Columbia.....	8,955	123	2,898	3
<b>Total.....</b>	<b>38,185</b>	<b>4,457</b>	<b>19,327</b>	<b>1,080</b>

## ADMINISTRATION.

## 15.—Acreage and Value of Indian Lands by Provinces, 1916.

Provinces.	Land cleared but not under cultivation.	Land under cultivation.	Value of Lands.
	Acres.	Acres.	\$
Prince Edward Island.....	404	397	20,214
Nova Scotia.....	3,090	2,090	86,665
New Brunswick.....	965	839	71,200
Quebec.....	14,080	8,736	1,318,210
Ontario.....	70,256	65,749	4,827,957
Manitoba.....	110,078	9,997	2,303,690
Saskatchewan.....	851,019	27,803	10,587,557
Alberta.....	832,448	20,119	12,646,537
British Columbia.....	257,464	37,468	13,494,015
<b>Total.....</b>	<b>2,139,804</b>	<b>173,198</b>	<b>45,356,045</b>

## 16.—Numbers of Indian Population engaged in Agriculture, Stock-raising and other occupations by Provinces, 1916.

Provinces.	Agriculture.	Stock-Raising.	Hunting, Trapping and Fishing.	Other Industries.
	No.	No.	No.	No.
Prince Edward Island.....	15	—	45	—
Nova Scotia.....	210	71	397	378
New Brunswick.....	192	22	153	235
Quebec.....	333	42	849	1,128
Ontario.....	1,888	889	2,416	2,379
Manitoba.....	230	144	1,978	358
Saskatchewan.....	828	1,037	939	570
Alberta.....	549	850	319	127
British Columbia.....	2,206	1,067	4,252	1,789
<b>Total.....</b>	<b>6,451</b>	<b>4,122</b>	<b>11,348</b>	<b>6,964</b>

## 17.—Area and Yield of Field Crops of Indians by Provinces, 1916.

Provinces.	Wheat.		Oats.		Other Grain.	
	Acres.	Bush.	Acres.	Bush.	Acres.	Bush.
Prince Edward Island.....	15	136	35	525	—	—
Nova Scotia.....	$\frac{1}{4}$	12	83	1,368	17	248
New Brunswick.....	4	58	106	2,165	24	257
Quebec.....	226	2,724	2,508	43,138	867	13,616
Ontario.....	3,629	71,227	7,662	229,456	3,651	98,454
Manitoba.....	3,877	68,569	2,494	55,302	473	7,326
Saskatchewan.....	8,512	147,762	10,171	390,418	438	5,983
Alberta.....	6,315	187,924	5,912	200,138	566	14,735
British Columbia.....	1,937	35,150	5,488	155,922	877	17,171
<b>Total.....</b>	<b>24,515<math>\frac{1}{4}</math></b>	<b>513,562</b>	<b>34,459</b>	<b>1,078,432</b>	<b>6,913</b>	<b>157,790</b>

## INDIAN POPULATION.

## 17.—Area and Yield of Field Crops of Indians by Provinces, 1916—concluded.

Provinces.	Potatoes.		Other Roots.	Hay and Fodder.
	Acres.	Bush.	Bush.	Tons.
Prince Edward Island.....	10	525	—	87
Nova Scotia.....	152	5,035	1,185	890
New Brunswick.....	66	2,903	280	167
Quebec.....	954	48,107	3,300	3,348
Ontario.....	1,799	88,105	33,906	34,416
Manitoba.....	418	15,191	697	11,920
Saskatchewan.....	182	12,299	5,703	36,573
Alberta.....	148	19,488	5,062	20,112
British Columbia.....	2,424	275,834	82,478	24,292
<b>Total.....</b>	<b>6,153</b>	<b>467,487</b>	<b>132,611</b>	<b>131,805</b>

## 18.—Numbers of Farm Live Stock of Indians with Total Values by Provinces, 1916.

Provinces.	Horses.	Cattle.	Other Stock.	Poultry.	Value of Live Stock and Poultry.
	No.	No.	No.	No.	\$
Prince Edward Island.....	14	16	2	160	1,500
Nova Scotia.....	63	287	132	1,094	10,912
New Brunswick.....	42	96	13	494	22,053
Quebec.....	843	1,903	1,409	11,125	141,596
Ontario.....	3,740	5,812	5,630	53,341	586,829
Manitoba.....	1,384	2,523	132	2,903	212,758
Saskatchewan.....	3,931	7,389	529	5,508	808,530
Alberta.....	10,349	7,952	502	4,121	934,627
British Columbia.....	14,949	11,210	5,226	29,650	961,287
<b>Total.....</b>	<b>35,315</b>	<b>37,188</b>	<b>13,575</b>	<b>108,396</b>	<b>3,680,092</b>

## 19.—Sources and Value of Income of Indians, 1916.

Provinces.	Value of			Re- ceiv- ed from Land Rent- als.	Earned by			Total Income of Indians.
	Farm Products including Hay.	Beef Sold. 1	Wages Earned.		Fish- ing. 1	Hunting and Trapping 1	Other Indus- tries.	
	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island.....	1,425	160	—	—	4,500	40	5,000	11,125
Nova Scotia.....	18,990	4,095	45,790	410	4,920	9,360	41,395	124,870
N. Brunswick.....	6,482	200	56,820	25	7,460	1,472	8,540	80,999
Quebec.....	146,678	25,306	235,453	11,627	4,865	69,268	69,044	562,241
Ontario.....	603,918	33,138	607,672	79,378	145,565	160,518	106,235	1,736,424
Manitoba.....	162,451	13,891	124,504	2,254	92,598	233,981	60,055	689,734
Saskat- chewan....	349,362	74,059	71,215	7,712	24,660	133,412	69,330	729,750
Alberta.....	301,711	62,513	103,986	13,025	5,795	30,654	65,209	582,893
Br. Columbia	655,490	94,417	285,023	2,695	365,165	152,181	168,490	1,723,461
<b>Total.....</b>	<b>2,246,507</b>	<b>307,779</b>	<b>1,530,373</b>	<b>117,126</b>	<b>655,528</b>	<b>790,886</b>	<b>593,298</b>	<b>6,241,497</b>

<sup>1</sup>Includes estimated value of meat and fish used for food.



## ADMINISTRATION.

## PUBLIC WORKS.

Since Confederation and before, the Department of Public Works has been known as the constructing department. In 1879, the railways and canals were placed under control of a new department; the building and maintenance of penitentiaries were transferred to the Department of Justice, the maintenance and construction of lighthouses to the Marine and Fisheries Department and the smaller drill halls and armouries to the Department of Militia and Defence. The work of the Department of Public Works is now divided into three principal branches, viz., Engineering Branch, the Architect's Branch and the Telegraph Branch. The National Gallery of Canada is also administered by this Department. (See Year Book of 1914, p. 645.)

**Engineering.**—The Engineering Branch comprises the construction and repair of wharfs, piers, breakwaters, dams, weirs, bank and beach protection works; the improvement of harbours and rivers by dredging; the construction, maintenance and operation of government dredging plant; the construction and maintenance of graving docks; the construction, maintenance and working of slides and booms; the construction and maintenance of interprovincial bridges and approaches thereto, and of bridges on highways of federal importance in the Northwest Territories and the maintenance of military roads; also hydrographic and ordinary surveys and examinations, inclusive of precision levelling and geodetic measurements which are required for the preparation of plans, reports and estimates; the testing of cements, etc. The Branch has charge of about 1,700 harbour works, 3 graving docks, 4 slide and boom works, interprovincial bridges, 51 dredges and 84 tugs and other dredging plant.

**Architecture.**—The Architect's Branch builds and maintains government buildings, post offices, custom houses, examining warehouses, and constructs quarantine, immigration and experimental farm buildings, armouries and drill halls, land offices and telegraph offices.

**Telegraphs.**—The Telegraph Branch has control over the construction, repair and maintenance of all government-owned telegraph lines and cables. These lines are located in the provinces of Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta, British Columbia and the Yukon, and statistics relating to them are given on page 480.

**Graving Docks.**—There are three graving or dry docks completed and owned by the Canadian Government, and a fourth is under contract. The dimensions of these three docks are shown in Table 20. The dock at Kingston, Ontario, is under lease to the Kingston Shipbuilding Company. The dock under contract is to be at Lévis, Quebec, east of the old dock, and is to be 1,150 feet long, divided into two parts (650 and 500 feet, respectively,) and 120 feet wide; it is to have a depth at high water of 40 feet. It will probably cost about \$2,750,000. Under the Dry Dock Subsidies Act, 1910 (9-10 Edw. VII, c. 17),<sup>1</sup> several docks have been subsidized by payments of 3 or 3½ p.c. per annum on the original cost for a given number of years, as shown by Table 21.

<sup>1</sup>For description of this Act, see Canada Year Book, 1910, p. xxviii.

## PUBLIC WORKS.

## 20.—Dimensions of Graving Docks owned by the Dominion Government.

Location.	Length.	Width at			Depth of water on sill.	Rise of tide.	
		Coping.	Bottom.	Entrance.		Spring.	Neap.
	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
Lévis, Que.....	600	100	73	62	26½	26½	20½
Esquimalt, B.C.	430	90	41	65	26½	7 to 10	3 to 8
Kingston, Ont..	315	70	47	69	14½ & 16½	—	—

## 21.—Dimensions and Cost of Graving Docks subsidized under the Dry Dock Subsidies Act, 1910.

Location.	Length.	Width.	Depth over sill.	Total cost.	Subsidy.
	Feet.	Feet.	Feet.	\$.	
Collingwood, Ont.....	350	55	16½	500,000	3 p.c. for 20 years.
" No. 2....	420	95	16	306,965	3 p.c. for 20 years.
Port Arthur, Ont.....	700	66	15	1,258,050	3 p.c. for 20 years.
Montreal, Que.....	600	100	27½	3,000,000	3½ p.c. for 35 years.
Prince Rupert, B.C....	600	100	25	2,199,168	3½ p.c. for 25 years.
Sault Ste. Marie, Ont..	650	77	18½	1,326,529	3 p.c. for 20 years. <sup>1</sup>
Toronto, Ont.....	300	80	15	894,121	3 p.c. for 20 years. <sup>1</sup>
St. John, N.B.....	1,150	(Plans not yet approved, but will be similar to those of the new Lévis dock.)			

<sup>1</sup> Not yet commenced.

**Expenditure and Revenue.**—Table 22 shows the expenditure and revenue for the fiscal years 1912-16 of the Public Works Department of the Dominion Government. For the year 1915-16, the expenditure was \$19,539,298, as compared with \$29,283,317 in 1914-15, a decrease of \$9,744,019. The revenue for the year shows an increase of \$22,470, accounted for by increases in slides and booms, graving dock and casual returns amounting to \$87,724 and decreases in rents and telegraph returns of \$65,254.

## ADMINISTRATION.

## 22.—Expenditure and Revenue of the Public Works Department for the fiscal years 1912-1916.

## EXPENDITURE.

Items.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Harbour and river works..	3,168,987	3,921,001	7,696,135	10,529,346	7,401,896
Dredging, plant, etc.....	5,029,147	5,980,030	6,228,303	5,120,611	3,875,713
Slides and Booms.....	174,834	124,220	167,435	333,619	115,418
Roads and Bridges.....	197,628	152,581	130,628	76,165	44,742
Public buildings.....	4,141,327	7,420,885	12,397,465	11,648,645	6,857,206
Telegraphs.....	641,759	741,145	768,378	1,003,590	742,692
Miscellaneous.....	574,985	504,362	602,993	571,341	501,631
<b>Total.....</b>	<b>13,928,667</b>	<b>18,844,224</b>	<b>27,991,337</b>	<b>29,283,317</b>	<b>19,539,298</b>

## REVENUE.

Slides and booms.....	87,790	110,108	76,883	80,598	108,228
Graving docks.....	50,615	47,928	61,490	35,305	64,216
Rents.....	33,355	88,852	113,670	111,098	90,129
Telegraph lines.....	200,330	215,526	253,112	225,512	181,227
Casual revenue.....	46,541	25,780	37,302	33,923	65,106
<b>Total.....</b>	<b>418,631</b>	<b>488,194</b>	<b>542,457</b>	<b>486,436</b>	<b>598,906</b>

## HARBOUR COMMISSIONS.

Certain of the more important Canadian harbours are controlled by Harbour Commissions, constituted by special act of the Dominion Parliament for each case. The number of commissioners varies, but is, in most cases, three. In every case the property of the harbour is vested in the commission, which has authority to administer the harbour, appoint the harbour master, make by-laws and regulations concerning the harbour and ships using it, fix and collect dues payable for the use of the harbour and control the expenditure of the revenue received from this source. For the purpose of harbour construction and improvement a commission may expropriate land and borrow money on debentures issued against security of the real and other property of the harbour. In the cases of Quebec and Montreal, money has been advanced by the Dominion Government against such debentures. The commissions are under the inspection of the Marine Department and make reports to the Minister of Marine. The harbours at the following places are administered by commissions, the date given in each case being that of the Act of Parliament under which the commission received its present constitution and powers: Pictou (1879); Quebec (1899); Three Rivers (1882); Montreal (1894); Belleville (1889); Toronto (1911); Hamilton (1912); Winnipeg and St. Boniface (1912); Vancouver (1913); New Westminster (1913); North Fraser (1913).

## PUBLIC HEALTH.

## PUBLIC HEALTH AND QUARANTINE.

The Public Health Service of the Dominion, considered chiefly in connection with the relations of Canada with other countries, is under the charge of a Director General of Public Health, whose office is a branch of the Department of Agriculture. The report for the year 1915-16 of the Director General of Public Health, printed as an Appendix to the Report of the Minister of Agriculture, describes the prevalence in foreign countries of endemic diseases, including Asiatic cholera, bubonic plague, smallpox, typhus fever, leprosy, beri-beri, enteric fever and trench fever, and of the inspection work of the quarantine stations at Canadian ports of entry.

During the year 1915-16, 1,582 vessels and 138,576 persons were inspected at 8 quarantine stations, and there were 80 admissions into hospitals. The corresponding figures for 1914-15 were 1,458 vessels and 349,190 persons inspected and 542 admissions to hospitals.

## PUBLIC DEFENCE.

**Military Forces.**—Before the outbreak of the war, the Canadian Militia consisted of a Permanent Force, which on March 31, 1914, numbered 3,000 officers, non-commissioned officers and men, and an Active Militia, which at the same date numbered 5,615 officers and 68,991 non-commissioned officers and men. Since the outbreak of the war on August 4, 1914, successive contingents of troops of all arms have been recruited, equipped, trained and despatched by the Canadian Government to Great Britain for active service as part of the Imperial forces.

Up to September 1, 1917, there had been sent overseas for active service in the Canadian Expeditionary Force 331,578 officers, non-commissioned officers and men.<sup>1</sup> At the same date there were training in Canada, in camps in the various military districts, 831 officers and 20,719 other ranks, a total of 21,550. In addition, there have been maintained on guard duty in Canada (canals, certain railway bridges and public buildings) about 11,830 of all ranks.

Table 23, showing the Militia Expenditure and Revenue for the five fiscal years 1912 to 1916, is taken from the Report for the year ended March 31, 1916, of the Militia Council. This table shows that the ordinary expenditure of the Department of Militia and Defence for the year ended March 31, 1916, was \$4,681,502, as compared with \$9,991,817 for 1915 and \$10,988,162 for 1914. The ordinary revenue amounted to \$292,273 for the year ended March 31, 1916, as compared with \$125,785 for 1915 and \$105,962 for 1914.

<sup>1</sup>See also page 687.



## ADMINISTRATION.

## 23.—Expenditure and Revenue of Militia for the Fiscal Years 1912-1916.

Schedule.	1912.	1913.	1914.	1915.	1916.
Allowances for drill instruction, care of arms and postage.....	\$ 83,867	\$ 85,474	\$ 101,904	\$ 66,513	\$ 68,643
Annual drill.....	1,169,068	1,719,257	1,830,034	1,875,944	-
Cadet corps.....	35,947	93,723	392,207	327,679	84,972
Clothing and necessities.....	475,175	508,788	699,572	510,810	-
Contingencies—including guards of honour, escorts and salutes	39,920	47,674	49,957	36,557	31,670
Custom dues.....	143,069	38,424	47,630	115,791	26,004
Departmental library.....	975	1,010	1,055	1,113	985
Dominion arsenal.....	236,790	325,863	358,315	265,262	299,678
Engineer services.....	487,222	791,895	1,452,729	1,111,196	690,755
Grants towards construction of City Regimental Armouries...	-	12,000	-	-	-
Grants to artillery and rifle associations and to regimental bands.....	56,270	64,315	79,506	73,605	47,878
Gratuities and compassionate allowances.....	2,551	2,170	4,300	15,190	500
Maintenance of military properties.....	80,937	88,925	107,214	209,231	175,053
Pay of Insp.-Gen. and military members of Militia Council (statutory).....	21,600	21,600	21,600	15,161	18,450
Pay of headquarters staff.....	66,178	78,617	74,002	72,050	74,956
Pay of division and district staffs	99,300	115,844	123,772	107,410	109,241
Permanent force—pay, provisions and supplies.....	1,946,636	2,200,183	2,198,453	2,114,493	2,116,245
Printing and stationery.....	53,489	59,828	72,209	69,880	70,000
Royal Military College.....	134,949	131,241	149,039	153,987	135,685
Salaries and wages of civil employees.....	155,645	170,700	197,823	243,936	232,797
Schools of instruction—pay of active militia attending.....	70,041	77,765	97,847	164,669	178,898
Topographical survey.....	24,714	35,055	39,059	35,038	25,440
Transport and freight.....	138,230	175,054	199,247	208,774	60,567
Warlike stores.....	531,332	683,080	703,375	496,867	-
Coronation contingents.....	134,835	-	-	-	-
Training Areas.....	-	-	-	234,592	233,085
Miscellaneous small votes.....	21,047	17,202	6,508	-	-
Ordnance, ammunition, tents, wagons and equipment generally, excepting clothing, saddlery and harness.....	649,276	572,486	967,804	593,167	-
Saddlery and harness.....	6,713	942	103,732	146,066	-
Clothing—reserve stock and outfitting new units.....	110,468	100,000	217,419	219,077	-
Ross rifles, spare parts, bayonets, scabbards, arm chests and inspection.....	419,937	552,073	640,613	478,543	-
Lands and construction of new rifle ranges.....	183,703 <sup>1</sup>	341,208	51,237	29,216	-
<b>Total ordnance, equipment, lands, etc.....</b>	<b>1,370,097</b>	<b>1,566,709</b>	<b>1,980,805</b>	<b>1,466,069</b>	<b>-</b>
<b>Total Militia expenditure....</b>	<b>7,579,884</b>	<b>9,112,396</b>	<b>10,988,162</b>	<b>9,991,817</b>	<b>4,681,502</b>

<sup>1</sup>A separate appropriation of \$75,000 was voted for purchase of lands for a Rifle Range, expenditure on which is included in this amount.

## PUBLIC DEFENCE.

23.—Expenditure and Revenue of Militia for the Fiscal Years 1912-1916  
—concluded.

Schedule.	1912.	1913.	1914.	1915.	1916.
	\$	\$	\$	\$	\$
Aid to civil power (statutory and recoverable from municipalities).....	716	78	187,857	68,800	—
Toronto barracks—special account.....	2,012	148,889	45	87,768	25
Winnipeg barracks—special account.....	—	137,053	—	—	—
Point St. Charles Armoury.....	—	—	—	—	—
Montreal barracks site.....	—	180,000	—	217	—
Transferred from Public Works Department.....	—	940	221,849	19,722	—
Pensions—Rebellion, 1837-8.....	80	40	—	—	—
Pensions—Fenian Raids.....	1,828	1,822	1,788	2,819	1,896
Pensions—Northwest Rebellion and general.....	17,118	17,689	17,834	20,227	21,164
Pensions—Pension Act, 1901....	45,698	50,470	70,940	79,845	82,877
Pensions—European War.....	—	—	—	—	307,693
<b>Total pensions.....</b>	<b>64,724</b>	<b>70,021</b>	<b>90,562</b>	<b>102,891</b>	<b>413,630</b>
Civil Government—salaries.....	137,251	146,718	157,137	168,545	172,534
Civil Government—contingencies	11,963	22,029	27,997	20,216	28,351
<b>Total Civil Government.....</b>	<b>149,214</b>	<b>168,747</b>	<b>185,134</b>	<b>188,761</b>	<b>200,885</b>
<b>Revenue received—</b>					
Militia.....	59,829	51,359	36,641	64,831	192,300
Casual.....	1,806	2,691	1,790	1,625	41,318
Royal Military College.....	34,286	36,785	36,817	32,047	35,142
Pension Act, 1901.....	25,209	28,393	30,714	27,282	23,513
<b>Total revenue.....</b>	<b>121,130</b>	<b>119,228</b>	<b>105,962</b>	<b>125,785</b>	<b>292,273</b>

**Expenditure on Account of War Appropriation.**—Table 24 shows that the total expenditure on account of war appropriation for the year ended March 31, 1916, was \$166,197,755, of which \$160,433,416 (\$122,840,863 paid out in Canada and \$37,592,553 paid out in England) was expended by the Department of Militia and Defence and \$5,764,339 was expended by other departments. To these sums may be added the expenditure on account of war appropriation prior to April 1, 1915, viz., \$60,750,476, of which \$53,176,614 (\$44,467,958 paid out in Canada and \$8,708,656 paid out in England) was expended by the Department of Militia and Defence and \$7,573,862 by other Departments. Altogether, therefore, the grand total to March 31, 1916, amounted to \$226,948,231, of which 213,610,030 was expended by the Department of Militia and Defence and \$13,338,201 by other Departments. The details of the expenditure to March 31, 1915, were given in Table 23 of the Year Book of 1915, pages 649 and 650.

## ADMINISTRATION.

## 24.—Expenditure on Account of War Appropriation for the Year ended March 31, 1916.

Items of Expenditure.	Paid out		Total.
	in Canada, year ended Mar. 31, 1916.	in London, Eng., year ended Mar. 31, 1916.	
<i>(A) By the Department of Militia and Defence:—</i>	\$	\$	\$
Pay and allowances (includes subsistence, billeting, rations and assigned pay)....	58,574,116	29,720,759	88,294,875
Separation allowances.....	10,482,566	2,010,899	12,493,465
Clothing (except boots).....	12,834,847	431,995	13,266,842
Boots and repairs to boots.....	4,584,127	123,995	4,708,122
Necessaries (kit bags and articles of kits). Outfit allowances.....	2,642,598	—	2,642,598
	841,314	779,624	1,620,938
Saddlery and horse equipment.....	1,039,057	317,151	1,356,208
Motor trucks, ambulances and other vehicles.....	1,545,722	212,272	1,757,994
Accoutrements.....	1,531,911	116,175	1,648,086
Binoculars, telescopes, heliographs, prisms, compasses, range finders.....	314,834	5,905	320,739
Drugs and surgical instruments.....	368,807	998,511	1,367,318
Dominion Arsenal (from war vote).....	967,418	—	967,418
Dominion Cartridge Co., ammunition.....	1,982,384	—	1,982,384
Ammunition from other sources.....	—	7,021	7,021
Ross Rifle Co., rifles and bayonets.....	4,206,644	—	4,206,644
Machine guns.....	1,570,053	—	1,570,053
Vickers Limited, payment on account.....	365,000	—	365,000
Heavy ordnance.....	345,389	—	345,389
Travelling and transport, sea.....	4,730,644	120,900	4,851,544
Travelling and transport, land.....	3,681,376	153,431	3,834,807
Forage and stabling.....	441,415	802,248	1,243,663
Pay, etc., of Censors.....	163,177	—	163,177
Pay of civil employees.....	948,704	15,722	964,426
Rent, water, fuel and light.....	843,334	65,198	908,532
Stores (furniture, bedding and utensils)...	3,532,525	1,392,253 <sup>1</sup>	4,924,778
Engineer services and works.....	1,764,790	153,814	1,918,604
Funeral expenses.....	23,088	3,273	26,361
Recruiting (medical examination, attestation and advertising).....	152,840	196	153,036
Telegrams, telephones, cables and postage	215,678	34,261	249,939
Printing and stationery.....	293,985	92,759	386,744
Conservancy and contingencies.....	261,135	32,099	293,234
Purchase of remounts, expenses of purchasers, etc.....	1,141,189	2,092	1,143,281
Customs dues.....	427,471	—	427,471
Lindsay arsenal site.....	22,725	—	22,725
<b>Total.....</b>	<b>122,840,863</b>	<b>37,592,553</b>	<b>160,433,416</b>

<sup>1</sup>This sum includes items for saddlery and horse equipment, clothing, necessities, and boots purchased from the War Office.

## PUBLIC DEFENCE.

24.—Expenditure on Account of War Appropriation, for the Year ended  
March 31, 1916—concluded.

(B) <i>By other Departments as follows :—</i>	\$
Trade and Commerce.....	14,796
Naval Service.....	3,274,020
Governor General's Secretary's Office.....	9,109
Privy Council.....	17,347
Secretary of State.....	21,668
Secretary of State for External Affairs.....	11,211
Post Office Department.....	349,672
Finance Department.....	73,671
Justice.....	1,287,693
Dominion Police.....	201,508
Indian Affairs.....	5,689
Royal Northwest Mounted Police.....	—
Railways & Canals.....	313,741
Public Works.....	94,344
Inland Revenue.....	6,723
War Purchasing Commission.....	29,413
Audit Office.....	4,439
Labour.....	1,071
Agriculture.....	5,078
Marine.....	1,530
Legislation (Library).....	270
Interior.....	41,346
<b>Total.....</b>	<b>5,764,339</b>
<b>Grand Total.....</b>	<b>166,197,755</b>



## ADMINISTRATION.

**War Pensions.**—A Board of Pension Commissioners for Canada, consisting of three members, was created by Order in Council of June 3, 1916, with exclusive jurisdiction and authority to deal with the granting and payment of naval and military pensions and other allowances to persons in the Canadian Naval Forces and the Canadian Expeditionary Force and to their dependents. There is no appeal from the decisions of the commission, but applicants may appear in person or by counsel before the commission to present complaints. The scale of pensions was revised by Order in Council of October 22, 1917. Under the new scale twenty classes are provided ranging from five p.c. disablement up to one hundred p.c., or total disablement. The pensions range for the rank and file, according to the class of disablement, from \$30 up to \$600 per annum, and for disablement from \$600 for rank and file up to \$2,700 for persons of and above the rank of commodore or brigadier-general. A further annual allowance is made for each child, which, for all men below the rank of commander or lieutenant-colonel, ranges, according to class of disablement, from \$6 up to \$96. Married men, not above the rank of naval sub-lieutenant or lieutenant of militia, receive an additional allowance which ranges, for all ranks, from \$4.80 up to \$96. Men of these same ranks may also receive an addition not exceeding \$300 if totally disabled and helpless. In the case of dependents of deceased sailors and soldiers, payments to widows are made only until re-marriage, and to dependent parents and brothers and sisters only when there is no widow or child. The age limit for the payment of pensions to children is 16 for boys and 17 for girls. This scale of pensions, which is set out in tabular form in Tables 25 and 26, replaces that which was recorded in the Canada Year Book, 1915, pp. 650 and 651. The total amount of the European war pensions paid by the Canadian Department of Militia and Defence and the Board of Pension Commissioners from May, 1915, to March 31, 1917, is \$2,148,033.77.

25.—Scale of Annual Pensions granted to Dependents of Deceased Sailors and Soldiers of the Canadian Naval Forces and the Canadian Expeditionary Force, as amended to October 22, 1917.

Rank or Rating.	Widows or Dependent Parents.	Each child or each dependent Brother or Sister.
All ratings below Petty Officer (Naval); Rank and File (Militia).....	\$ cts. 480.00	\$ cts. 96.00
Chief Petty Officer and Petty Officer (Naval); Squad. Battery or Company Sergt.-Major and Q.-M. Sergt., Sergt. including Staff-Sergt. and Col.-Sergt. (Militia)	510.00	96.00
Naval Cadet and Midshipman (Naval); Master Gunner not Warrant Officer, Regimental Sergt.-Major, not W. O., Regimental Q.-M. Sergt. (Militia).....	620.00	96.00
Warrant Officer and Chief Warrant Officer (Naval); Warrant Officer (Militia).....	680.00	96.00
Sub-Lieutenant (Naval); Lieutenant (Militia).....	720.00	96.00
Lieutenant (Naval); Captain (Militia).....	800.00	96.00
Lieutenant Commander (Naval); Major (Militia).....	1,008.00	96.00
Commander and Captain under three years' seniority (Naval); Lieutenant-Colonel (Militia).....	1,248.00	120.00
Captain (Naval); Colonel (Militia).....	1,512.00	120.00
Commodore and higher ranks (Naval); Brigadier-General and higher ranks (Militia).....	2,160.00	120.00

(a) Payable to the disabled man.

(b) Payable in addition for each child.

PERCENTAGE OF DISABILITY AND AMOUNT OF PENSIONS AND ALLOWANCES.

Rank or Rating.	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8		Class 9		Class 10	
	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	\$	p. c.	
All ratings below Petty Officer (Naval); Rank and File (Militia).	(a)	600 00	570 00	540 00	510 00	480 00	450 00	420 00	390 00	360 00	330 00	300 00	270 00	240 00	210 00	180 00	150 00	120 00	90 00	60 00
	(b)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
Chief Petty Officer and Petty Officer (Naval); Squad, Battery or Co.	(a)	637 50	605 63	573 75	541 88	510 00	478 13	446 25	414 38	382 50	350 63	318 75	286 88	255 00	223 13	191 25	159 38	127 50	95 63	63 75
	(b)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
Sgt.-Maj. and Q.-M. Sgt., Staff Sgt. and Colour Sgt. (Militia).	(a)	775 00	736 25	697 50	658 75	620 00	581 25	542 50	503 75	465 00	426 25	387 50	348 75	310 00	271 25	232 50	193 75	155 00	116 25	77 50
	(b)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
Naval Cadet & Midshipman (Naval); Master Gunner not Warrant Off., Regimental Sgt.-Maj., not W. O., Regimental Q.-M. Sgt. (Militia).	(a)	850 00	807 50	765 00	722 50	680 00	637 50	595 00	552 50	510 00	467 50	425 00	382 50	340 00	297 50	255 00	212 50	170 00	127 50	85 00
	(b)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
Warrant Officer and Chief Warrant Officer (Naval); Warrant Officer (Militia).	(a)	900 00	855 00	810 00	765 00	720 00	675 00	630 00	585 00	540 00	495 00	450 00	405 00	360 00	315 00	270 00	225 00	180 00	135 00	90 00
	(b)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
Sub-Lieutenant (Naval); Lieutenant (Militia)	(a)	96 00	91 20	86 40	81 60	76 80	72 00	67 20	62 40	57 60	52 80	48 00	43 20	38 40	33 60	28 80	24 00	19 20	14 40	9 60
	(b)	1,000 00	950 00	900 00	850 00	800 00	750 00	700 00	650 00	600 00	550 00	500 00	450 00	400 00	350 00	300 00	250 00	200 00	150 00	100 00
Lieutenant (Naval) and Captain (Militia)	(a)	96 00	93 00	90 00	87 00	84 00	81 00	78 00	75 00	72 00	69 00	66 00	63 00	60 00	57 00	54 00	51 00	48 00	45 00	42 00
	(b)	1,260 00	1,197 00	1,134 00	1,071 00	1,008 00	945 00	882 00	819 00	756 00	693 00	630 00	567 00	504 00	441 00	378 00	315 00	252 00	189 00	126 00
Lieutenant Commander (Naval); and Major (Militia)	(a)	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00	96 00
	(b)	1,560 00	1,482 00	1,404 00	1,326 00	1,248 00	1,170 00	1,092 00	1,014 00	936 00	858 00	780 00	702 00	624 00	546 00	468 00	390 00	312 00	234 00	156 00
Commander and Captain, under 3 years' seniority (Naval); Lieutenant-Colonel (Militia).	(a)	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00
	(b)	1,890 00	1,795 50	1,701 00	1,606 50	1,512 00	1,417 50	1,323 00	1,228 50	1,134 00	1,039 50	945 00	850 00	755 00	660 00	565 00	470 00	375 00	280 00	185 00
Captain (Naval); Colonel (Militia).	(a)	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00
	(b)	2,700 00	2,565 00	2,430 00	2,295 00	2,160 00	2,025 00	1,890 00	1,755 00	1,620 00	1,485 00	1,350 00	1,215 00	1,080 00	945 00	810 00	675 00	540 00	405 00	270 00
Commodore & higher ranks (Naval); Brigadier-General and higher ranks (Militia).	(a)	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00
	(b)	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00

## ADMINISTRATION.

26.—Scale of Annual Pensions to Disabled Sailors and Soldiers of the Canadian Naval Forces and the Canadian Expeditionary Force, as amended to October 22, 1917—concluded.

(a) Payable to the disabled man. (b) Payable in addition for each child.

## PERCENTAGE OF DISABILITY AND AMOUNT OF PENSIONS AND ALLOWANCES.

Rank or Rating.	Class 11		Class 12		Class 13		Class 14		Class 15		Class 16		Class 17		Class 18		Class 19		Class 20	
	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	\$ c.	p. c.	
All Ratings below Petty Officer (Naval); Rank and File (Militia).	(a)	300 00	270 00	240 00	210 00	180 00	150 00	120 00	90 00	60 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	6 00
Chief Petty Officer and Petty Officer (Naval); Squad, Battery or Co. Sgt.-Maj. and Q.-M. Sgt., Sgt., Staff Sgt. & Colour Sgt. (Militia).	(a)	318.75	286.88	255.00	223.13	191.25	159.38	127.50	95.63	63.75	31.88	12.00	9.60	7.20	4.80	12.00	9.60	7.20	4.80	31.88
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	6 00
Naval Cadet and Midshipman (Naval); Master Gunner, not Warrant Off., Regimental Sgt.-Maj., not W.O., Regimental Q.-M. Sgt. (Militia).	(a)	387.50	348.75	310.00	271.25	232.50	193.75	155.00	116.25	77.50	38.75	15.00	12.00	9.00	6.00	15.00	12.00	9.00	6.00	38.75
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	6 00
Warrant Officer and Chief Warrant Officer (Naval); Warrant Officer (Militia).	(a)	425.00	382.50	340.00	297.50	255.00	212.50	170.00	127.50	85.00	42.50	17.00	14.00	10.50	7.00	17.00	14.00	10.50	7.00	42.50
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	6 00
Sub-Lieutenant (Naval); Lieutenant (Militia).	(a)	450.00	405.00	360.00	315.00	270.00	225.00	180.00	135.00	90.00	45.00	180.00	135.00	90.00	45.00	180.00	135.00	90.00	45.00	45.00
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	12 00	6 00	30 00	24 00	18 00	6 00
Additional allowance to married men of above Ranks.	(a)	48.00	43.20	38.40	33.60	28.80	24.00	19.20	14.40	9.60	4.80	19.20	14.40	9.60	4.80	19.20	14.40	9.60	4.80	4.80
	(b)	500 00	450 00	400 00	350 00	300 00	250 00	200 00	150 00	100 00	50 00	200 00	150 00	100 00	50 00	200 00	150 00	100 00	50 00	50 00
Lieutenant (Naval); Captain (Militia).	(a)	60.00	54.00	48.00	42.00	36.00	30.00	24.00	18.00	12.00	6.00	24.00	18.00	12.00	6.00	24.00	18.00	12.00	6.00	6.00
	(b)	630 00	567 00	504 00	441 00	378 00	315 00	252 00	189 00	126 00	63 00	252 00	189 00	126 00	63 00	252 00	189 00	126 00	63 00	63 00
Lieutenant Commander (Naval); Major (Militia).	(a)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	6 00
	(b)	780 00	702 00	624 00	546 00	468 00	390 00	312 00	234 00	156 00	78 00	312 00	234 00	156 00	78 00	312 00	234 00	156 00	78 00	78 00
Commander and Captain, under 3 years' seniority (Naval); Lieutenant-Colonel (Militia).	(a)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	6 00
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	6 00
Captain (Naval); Colonel (Militia).	(a)	945 00	850 00	756 00	661 50	567 00	472 50	378 00	283 50	189 00	94 50	378 00	283 50	189 00	94 50	378 00	283 50	189 00	94 50	94 50
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	6 00
Commodore and higher ranks (Naval); Brigadier-General and higher ranks (Militia).	(a)	1,350 00	1,215 00	1,080 00	945 00	810 00	675 00	540 00	405 00	270 00	135 00	540 00	405 00	270 00	135 00	540 00	405 00	270 00	135 00	135 00
	(b)	60 00	54 00	48 00	42 00	36 00	30 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	24 00	18 00	12 00	6 00	6 00



## PUBLIC DEFENCE.

**Naval Service.**—The Naval Service of Canada was established by the Naval Service Act, 1910 (9-10 Edw. VII, c. 43), the main provisions of which were described in the Year Book of 1910, pp. xxvi-xxix. The Department of the Naval Service, then created, now consists of eight branches:—(1) Naval, (2) Fisheries, (3) Fisheries Protection, (4) Tidal and Current Survey, (5) Hydrographic Survey, (6) Radio-telegraphy, (7) Patrol of Northern Waters and (8) Life Saving Service. The total financial appropriation of the Department for the year 1916-17 was \$3,819,250, of which the sum of \$2,027,215 was expended to January 31, 1917. The appropriation for the Naval Branch was \$1,000,000, of which the sum of \$447,807 was expended to January 31, 1917. In addition to the foregoing, the sum of \$6,640,209 was expended for the same period out of the war appropriation.

**Royal Naval College.**—The officers of the Royal Naval College continue to report most favourably, both as to their mental and physical progress, on the cadets in attendance during the past year. The midshipmen who have been serving in ships of the Royal Navy and the Royal Canadian Navy have also been favourably reported upon, and have proved themselves capable and efficient. There are, at present, fifty-four officers of the Royal Canadian Navy who have been lent to the Royal Navy for service. They include six lieutenants, one naval instructor, four engineer lieutenants, fourteen sub-lieutenants, nine acting sub-lieutenants and twenty midshipmen. At the examinations held in May, 1916, fifteen cadets were successful; thirteen of these joined the Royal Naval College. The course of the Royal Naval College at Halifax corresponds to that of the Royal Military College at Kingston, except that it is on a naval basis. Graduates of the Naval College have the option of adopting a seafaring career, of accepting positions in the Canadian Government, in the Hydrographic or Tidal and Current Surveys, or of entering the course of applied science in the second year at the Universities of McGill or Toronto. Arrangements have been made with the Admiralty whereby eight graduates of the Royal Naval College may be entered yearly in the Royal Navy. The same rules that govern other officers of the Royal Navy apply to entrants from the Canadian Naval College. As the result of the examinations for cadetships held on May 16, 17 and 18, 1917, 20 successful cadets entered the College on August 2, 1917.

**Northwest Mounted Police.**—The Royal Northwest Mounted Police are distributed in Manitoba, Saskatchewan, Alberta, the Northwest Territories and the Yukon Territory, with headquarters at Regina, Saskatchewan, and the operations of the force for the year ended September 30, 1916, are described in the Commissioner's Report dated November 1, 1916. On September 30, 1916, the strength of the force was 57 officers, 740 non-commissioned officers and constables and 804 horses, a decrease of 3 officers, 129 non-commissioned officers and constables and 83 horses, as compared with the previous year. The force at this date was 103 under the authorized strength, due to the difficulty in securing recruits owing to the war.



## ADMINISTRATION.

## 27.—Strength and Distribution of the Royal Northwest Mounted Police on September 30, 1916.

Description.	Alberta.	Saskatchewan.	Manitoba.	New Manitoba.	North-west Territories.	Yukon Territory.	Total.
Commissioner. ....	—	1	—	—	—	—	1
Assistant Commissioners....	1	—	—	—	—	—	1
Superintendents....	5	5	—	1	—	1	12
Inspectors.....	14	18	1	1	2	3	39
Surgeons.....	1	2	—	—	—	—	3
Veterinary Surgeons	—	1	—	—	—	—	1
Staff Sergeants....	21	28	1	—	1	5	56
Sergeants.....	28	33	1	1	2	5	70
Corporals.....	51	50	2	4	3	5	115
Constables.....	146	195	23	14	4	31	413
Special Constables..	45	29	—	4	6	2	86
<b>Total.....</b>	<b>312</b>	<b>362</b>	<b>28</b>	<b>25</b>	<b>18</b>	<b>52</b>	<b>797</b>
Horses.....	343	407	36	—	2	16	804
Dogs.....	9	21	—	66	45	25	166

## CRIMINAL STATISTICS AND PENITENTIARIES.

The criminal statistics of Canada are collected, compiled and published annually by the Census and Statistics Office under statutory authority of the Census and Statistics Act, 1905 (4-5 Edw. VII, c. 5). They relate to the year ended September 30, and the last issued annual report is for 1915. The statistics are divided into the two classes of (1) indictable offences and (2) summary convictions, the former comprising all cases tried by police or other magistrates and the latter all cases of minor importance disposed of by justices of the peace under the Summary Convictions Act.

**Indictable Offences.**—Table 28 shows by provinces in respect of indictable offences the number of charges and convictions and the percentage of acquittals for the years 1914 and 1915. There were

## CRIMINAL STATISTICS.

26,714 charges and 20,625 convictions for indictable offences throughout Canada during the year ended September 30, 1915, as compared with 28,007 charges and 21,438 convictions in 1914, a decrease of 1,293, or 4.62 p.c., for charges and of 813, or 3.79 p.c., for convictions during the year. As shown by the table, a decrease in the number of charges is found in every province except Nova Scotia, New Brunswick, Manitoba and Saskatchewan.

**Summary Convictions.**—The number of summary convictions in 1915 was 132,430, as compared with 161,597 in 1914. This represents a decrease of 29,167, or 18.05 p.c.

**Death Sentences.**—During 1915, 34 persons were sentenced to death for murder, as compared with 27 in 1914. Death sentences in 1915 were carried out in 21 cases, compared with 11 in 1914, and were commuted to life imprisonment in 13 cases in 1915, compared with 16 in 1914. Seven persons were sentenced in 1915 to be imprisoned for life, as compared with eight persons in 1914.

28.—Charges, Convictions and Percentages of Acquittals for Indictable Offences by Provinces, 1914 and 1915.

Provinces.	1914.			1915.		
	Charges.	Convictions.	Acquittals.	Charges.	Convictions.	Acquittals.
	No.	No.	p.c.	No.	No.	p.c.
Prince Edward Island.	37	25	32.43	27	16	40.74
Nova Scotia.....	1,141	766	32.86	1,469	950	35.33
New Brunswick.....	273	229	16.12	345	278	19.42
Quebec.....	4,428	3,586	19.01	3,924	3,053	22.20
Ontario.....	11,263	8,932	20.70	10,906	8,934	18.08
Manitoba.....	1,733	1,494	13.79	1,859	1,577	15.17
Saskatchewan.....	2,688	1,928	28.27	2,754	2,022	26.58
Alberta.....	3,162	2,237	29.75	2,894	2,088	27.85
British Columbia....	3,239	2,213	31.67	2,494	1,680	32.64
Yukon.....	43	28	34.88	42	27	35.47
Canada.....	28,007	21,438	23.45	26,714	20,625	22.79

## ADMINISTRATION.

## 29.—Indictable Offences by Classes, 1914 and 1915.

Class.	1914.		1915.	
	Charges.	Convictions.	Charges.	Convictions.
	No.	No.	No.	No.
I. Offences against the person.....	6,143	4,428	5,599	3,979
II. Offences against property with violence	2,193	1,810	2,652	2,234
III. Offences against property without violence.....	16,771	13,000	16,038	12,631
IV. Malicious offences against property..	397	248	384	256
V. Forgery and other offences against the currency.....	608	519	432	347
VI. Other offences not in the foregoing classes.....	1,895	1,433	1,609	1,178
<b>Total.....</b>	<b>28,007</b>	<b>21,438</b>	<b>26,714</b>	<b>20,625</b>

## 30.—Convictions and Sentences for all Offences, by Provinces, 1909-1915.

Provinces.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
	No.	No.	No.	No.	No.	No.	No.
<b>Canada.</b>							
Convictions.....	89,952	102,903	113,260	146,527	173,138	183,035	153,055
Sentences—							
Penitentiary....	1,121	882	1,085	1,248	1,303	1,216	1,322
Gaol or fine....	73,335	86,096	93,827	122,491	142,016	141,807	115,150
Reformatory....	300	433	315	433	551	592	517
Death.....	18	21	17	25	23	27	34
Other Sentences..	15,178	15,471	18,016	22,330	29,245	39,393	36,032
<b>Prince Edward I.</b>							
Convictions.....	302	384	396	448	455	523	362
Sentences—							
Penitentiary....	6	3	12	5	4	—	8
Gaol or fine....	274	360	367	434	447	504	350
Reformatory....	—	—	—	—	—	—	—
Death.....	—	—	—	1	—	—	—
Other Sentences..	22	21	17	8	4	19	4
<b>Nova Scotia.</b>							
Convictions.....	4,880	6,097	5,689	6,649	7,038	7,379	6,724
Sentences—							
Penitentiary....	69	103	56	73	83	70	93
Gaol or fine....	4,494	5,273	5,237	6,174	6,417	6,769	5,963
Reformatory....	30	24	14	31	42	46	55
Death.....	—	—	2	2	2	3	2
Other Sentences..	287	697	380	369	494	491	611

## CRIMINAL STATISTICS.

## 30.—Convictions and Sentences for all Offences, by Provinces, 1909-1915—con.

Provinces.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
	No.	No.	No.	No.	No.	No.	No.
<b>New Brunswick.</b>							
Convictions.....	2,637	2,595	2,912	3,157	3,324	3,101	3,111
Sentences—							
Penitentiary....	24	34	21	28	19	24	33
Gaol or fine....	2,499	2,391	2,764	3,007	3,166	2,935	2,834
Reformatory....	6	4	1	5	10	11	24
Death.....	2	—	—	—	—	—	—
Other Sentences..	106	166	126	117	129	131	220
<b>Quebec.</b>							
Convictions.....	18,855	18,514	19,773	26,850	32,703	34,149	27,205
Sentences—							
Penitentiary....	339	209	243	179	187	226	273
Gaol or fine....	13,911	14,597	15,671	21,966	25,881	26,112	20,021
Reformatory....	79	105	69	94	121	139	141
Death.....	1	1	2	7	1	2	5
Other Sentences..	4,525	3,602	3,788	4,604	6,513	7,670	6,765
<b>Ontario.</b>							
Convictions.....	36,636	41,401	40,782	48,552	58,799	65,806	58,876
Sentences—							
Penitentiary....	353	210	279	300	289	355	409
Gaol or fine....	29,265	33,971	32,097	38,846	45,134	48,763	41,303
Reformatory....	169	247	147	235	263	242	234
Death.....	8	9	7	3	4	4	7
Other Sentences..	6,841	6,964	8,252	9,168	13,109	16,442	16,923
<b>Manitoba.</b>							
Convictions.....	9,093	10,026	13,413	15,287	18,095	16,334	12,843
Sentences—							
Penitentiary....	133	69	126	159	175	73	129
Gaol or fine....	7,142	8,335	11,526	13,057	15,573	13,302	10,277
Reformatory....	8	8	44	44	63	106	33
Death.....	1	—	1	2	2	2	6
Other Sentences..	1,809	1,614	1,716	2,025	2,282	2,851	2,398
<b>Saskatchewan.</b>							
Convictions.....	5,120	7,248	8,294	10,404	13,328	13,782	11,672
Sentences—							
Penitentiary....	45	41	66	93	70	107	60
Gaol or fine....	4,797	6,716	7,688	9,702	12,170	12,184	10,586
Reformatory....	1	2	15	4	8	8	3
Death.....	1	3	1	2	4	4	1
Other Sentences..	276	486	524	603	1,076	1,479	1,022



## ADMINISTRATION.

## 30.—Convictions and Sentences for all Offences, by Provinces, 1909-1915—concluded

Provinces.	1909.	1910.	1911.	1912.	1913.	1914. *	1915.
	No.	No.	No.	No.	No.	No.	No.
<b>Alberta.</b>							
Convictions.....	6,878	9,515	10,269	16,775	19,426	19,043	14,419
Sentences—							
Penitentiary....	46	124	104	192	220	185	157
Gaol or fine....	6,016	8,234	9,113	15,274	17,504	16,271	12,558
Reformatory....	1	19	3	3	15	4	4
Death.....	2	2	2	4	3	4	2
Other Sentences..	813	1,136	1,047	1,302	1,684	2,579	1,698
<b>British Columbia.</b>							
Convictions.....	5,248	6,868	11,529	18,125	19,786	22,694	17,673
Sentences—							
Penitentiary....	106	88	173	216	252	176	160
Gaol or fine....	4,703	6,033	9,206	13,812	15,582	14,794	11,136
Reformatory....	6	24	22	17	29	36	23
Death.....	3	6	2	4	7	7	10
Other Sentences..	480	717	2,126	4,076	3,916	7,681	6,344
<b>Yukon Territory.</b>							
Convictions.....	294	238	171	189	184	224	170
Sentences—							
Penitentiary....	—	1	5	3	4	—	—
Gaol or fine....	225	169	127	130	142	173	122
Reformatory....	—	—	—	—	—	—	—
Death.....	—	—	—	—	—	1	1
Other Sentences..	69	68	39	56	38	50	47
<b>The Territories.</b>							
Convictions.....	9	17	32	91	—	—	—
Sentences—							
Penitentiary....	—	—	—	—	—	—	—
Gaol or fine....	9	17	31	89	—	—	—
Reformatory....	—	—	—	—	—	—	—
Death.....	—	—	—	—	—	—	—
Other Sentences..	—	—	1	2	—	—	—

**Juvenile Delinquents' Act.**—Since the last issue of the Year Book, this Act has been put into force throughout the province of Saskatchewan and in the town of St. Mary's, Ontario. It is also in force in the following places: County of Pictou, N.S.; Halifax, N.S.; Toronto, Ont.; the City of Brantford and county of Brant, Ont.; Montreal, Que.; Victoria and Vancouver, B.C.; Winnipeg, Man.; Ottawa, Ont.; Charlottetown, P.E.I.; Stratford, Kitchener, the counties of Perth and Waterloo and the district of Timiskaming, Ont.; the Dauphin Judicial District of Manitoba; the province of Alberta.

## CRIMINAL STATISTICS.

31.—Juvenile Criminals convicted of Indictable Offences by Classes of Offences, 1915, with the total and yearly average for the period 1885-1915.

Classes of Offences.	Under 16 years.		16 years and under 21.		Totals.	
	M.	F.	M.	F.	M.	F.
	No.	No.	No.	No.	No.	No. <sup>1</sup>
I. Offences against the person.....	77	7	265	20	342	27
II. Offences against property with violence.....	605	1	605	1	1,210	2
III. Offences against property without violence.....	2,177	65	1,545	124	3,722	189
IV. Malicious offences against property.	77	—	11	—	88	—
V. Forgery and offences against the currency.....	3	1	34	3	37	4
VI. Other offences not included in the above offences.....	33	4	105	6	138	10
<b>Total.....</b>	<b>2,972</b>	<b>78</b>	<b>2,565</b>	<b>154</b>	<b>5,537</b>	<b>232</b>
<b>Total 1885-1915.....</b>	<b>30,569</b>	<b>1,285</b>	<b>34,206</b>	<b>2,570</b>	<b>64,775</b>	<b>3,855</b>
<b>Yearly average 1885-1915.....</b>	<b>986</b>	<b>41</b>	<b>1,103</b>	<b>83</b>	<b>2,089</b>	<b>124</b>

32.—Charges, Acquittals, Convictions and Sentences in respect of Indictable Offences, 1910-1915.

Charges and Sentences.	1910.	1911.	1912.	1913.	1914.	1915.
	No.	No.	No.	No.	No.	No.
Charges.....	15,305	16,625	20,168	24,078	28,007	26,714
Acquittals <sup>1</sup> .....	3,589	3,975	4,584	5,732	6,543	6,060
Persons detained for lunacy.....	16	23	17	26	26	29
Convictions.....	11,700	12,627	15,567	18,320	21,438	20,625
Males.....	11,140	12,008	14,858	17,380	20,528	19,624
Females.....	560	619	709	940	910	1,001
First conviction.....	10,283	11,233	14,372	15,725	18,315	17,695
Second conviction.....	796	800	631	1,409	1,819	1,776
Reiterated conviction.....	621	594	564	1,186	1,304	1,154
Sentences—						
Option of a fine.....	3,088	3,071	4,144	4,655	5,518	5,344
Under one year in gaol.....	3,621	3,994	4,779	5,263	6,306	5,774
One year and over in gaol.....	444	568	738	798	946	893
Two years and under five in penitentiary.....	729	821	931	1,007	967	1,074
Five years and over in penitentiary.....	151	259	308	293	241	241
For life in penitentiary.....	2	5	9	3	8	7
Death.....	21	17	25	23	27	34
Committed to reformatories.....	433	315	433	551	592	517
Other sentences.....	3,211	3,577	4,200	5,727	6,833	6,741

<sup>1</sup>Includes cases where proceedings were stayed, disagreement of jury, etc.

## ADMINISTRATION.

## 33.—Classification of Persons Convicted of Indictable Offences, 1910-1915.

Classes.	1910.	1911.	1912.	1913.	1914.	1915.
	No.	No.	No.	No.	No.	No.
Occupations—						
Agricultural.....	642	545	664	702	1,267	1,312
Commercial.....	1,373	1,601	1,773	2,580	1,957	2,039
Domestic.....	565	654	766	1,012	1,106	955
Industrial.....	938	887	1,193	1,441	1,798	1,573
Professional.....	92	112	49	149	149	238
Labourer.....	4,647	4,767	5,844	6,191	7,768	6,736
Not given.....	3,443	4,061	5,278	6,245	7,393	7,773
Civil condition—						
Married.....	2,724	3,278	3,368	4,025	4,584	4,323
Single.....	6,634	7,000	8,631	10,074	10,968	11,320
Widowed.....	128	188	232	138	154	136
Not given.....	2,214	2,161	3,336	4,083	5,732	4,846
Educational status—						
Unable to read or write.....	787	737	243	274	769	1,066
Elementary.....	8,612	9,514	11,996	13,311	14,865	14,138
Superior.....	212	244	269	295	415	332
Not given.....	2,089	2,132	3,059	4,440	5,389	5,089
Ages—						
Under 16 years.....	1,373	1,439	1,881	2,313	2,628	3,050
16 years and under 21.....	1,589	1,640	1,781	2,442	2,652	2,719
21 years and under 40.....	5,006	5,795	6,815	7,630	8,831	8,114
40 years and over.....	1,532	1,562	1,675	1,560	2,158	2,036
Not given.....	2,200	2,191	3,415	4,375	5,169	4,706
Use of liquors—						
Moderate.....	7,163	7,931	9,339	8,044	7,539	7,394
Immoderate.....	2,396	2,499	3,063	3,183	3,174	2,348
Not given.....	2,141	2,197	3,165	7,093	10,725	10,883
Birthplace—						
England and Wales.....	925	1,246	1,319	1,961	1,872	1,482
Ireland.....	258	302	404	451	472	327
Scotland.....	257	365	451	571	675	473
Canada.....	6,267	6,376	6,713	7,619	9,162	9,172
Other British possessions.....	49	16	101	87	151	132
United States.....	557	734	910	1,216	1,015	980
Other foreign countries.....	1,315	1,547	2,065	2,674	3,516	3,741
Not given.....	2,072	2,041	3,604	3,741	4,575	4,318
Religion—						
Baptist.....	241	285	383	374	333	379
Roman Catholic.....	4,083	4,194	4,721	5,633	6,355	6,245
Church of England.....	1,486	1,705	1,951	2,193	2,515	2,208
Methodist.....	900	1,097	1,218	1,127	1,434	1,389
Presbyterian.....	916	1,178	1,224	1,380	1,495	1,367
Protestant.....	1,137	1,132	1,325	2,304	2,502	2,294
Other denominations.....	615	590	1,174	1,240	1,425	1,777
Not given.....	2,322	2,446	3,571	4,069	5,379	4,966
Residence—						
Cities and towns.....	8,763	9,610	11,474	14,061	15,544	14,662
Rural districts.....	1,355	1,459	1,355	1,406	2,210	2,434
Not given.....	1,532	1,558	2,738	2,853	3,684	3,529





## ADMINISTRATION.

**Penitentiaries.**—The statistics of penitentiaries are compiled from the annual reports to the Minister of Justice of the Inspectors of Penitentiaries. The report for the fiscal year 1916-17, in reference to the parole system, states that the total number of paroles granted during an eighteen years' operation is 10,214. A total of 8,711 men have completed their probation on parole and occupy positions in good citizenship to-day, and 869 prisoners are now reporting and have in prospect the completion of their probation on parole. The total delinquency for non-compliance with conditions of license is 374, or 3.66 p.c., and for subsequent conviction 260, or 2.53 p.c., making a total delinquency of 6.19 p.c.

## 35.—Movement of Convicts, 1911-1916.

Schedule.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.
In custody at beginning of fiscal year.....	1,859	1,865	1,895	1,968	2,003	2,064
Received—						
By forfeiture of parole....	12	9	10	26	12	11
Paroles revoked.....	7	6	7	10	4	4
Recaptured.....	1	3	7	6	2	1
By transfer.....	8	55	21	16	18	24
From gaol, etc.....	810	801	888	870	991	900
<b>Totals.....</b>	<b>2,697</b>	<b>2,739</b>	<b>2,828</b>	<b>2,896</b>	<b>3,030</b>	<b>3,004</b>
Released by—						
Death.....	22	20	23	16	24	11
Escape.....	2	9	6	10	2	1
Expiry of sentence.....	394	322	282	274	293	304
Order of the court.....	5	—	2	4	6	9
Pardon.....	15	17	3	5	6	4
Parole.....	334	380	445	480	495	423
Transfer.....	8	55	21	15	24	24
Deportation.....	45	40	73	84	114	101
Sent to Reformatory.....	—	—	—	1	1	1
Returned—insane.....	7	1	5	4	—	8
Sent to Hospital.....	—	—	—	—	1	—
<b>In custody at end of fiscal year.....</b>	<b>1,865</b>	<b>1,895</b>	<b>1,968</b>	<b>2,003</b>	<b>2,064</b>	<b>2,118</b>

## PENITENTIARIES.

## 36.—Number of Deaths, Escapes, Pardons and Paroles, 1911-1916.

Schedule.	1911.	1912.	1913.	1914.	1915.	1916.
Deaths.....	22	20	23	16	24	11
Escapes.....	2	9	6	10	2	1
Pardons.....	15	17	3	5	6	4
Paroles.....	334	380	445	480	495	423

## 37.—Age of Convicts, 1911-1916.

Schedule.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.
Under 20 years.....	187	173	209	186	187	212
From 20 to 30.....	823	840	875	890	917	941
From 30 to under 40.....	474	481	496	534	553	563
From 40 to under 50.....	235	251	249	243	240	253
From 50 to under 60.....	107	103	104	108	121	119
Over 60 years.....	39 <sup>1</sup>	47 <sup>2</sup>	35	42	46 <sup>3</sup>	30
Totals.....	1,865	1,895	1,968	2,003	2,064	2,118

<sup>1</sup>Includes one age not given and one age unknown.<sup>2</sup>Includes two age unknown.<sup>3</sup>Includes one age unknown.

## 38.—Classification of Convicts, 1911-1916.

Classes.	1911.	1912.	1913.	1914.	1915.	1916.
By Race—	No.	No.	No.	No.	No.	No.
African.....	52	52	62	57	62	63
Caucasian.....	1,747	1,777	1,831	1,867	1,929	1,970
Indian.....	25	21	23	22	20	19
Indian half breed.....	19	18	23	16	14	19
Mongolian.....	21	27	29	41	39	47
Totals.....	1,865 <sup>1</sup>	1,895	1,968	2,003	2,064	2,118
By Nationality—						
British—						
Australian.....	4	6	5	—	7	—
Canadian.....	1,004	958	984	993	1,088	1,185
English.....	198	208	206	221	195	169
Irish.....	54	64	67	58	59	43
Scotch.....	45	52	56	59	47	40
Other British.....	21	15	21	37	28	26
Foreign—						
American (U.S.).....	229	226	260	246	210	204
Austrian and Hungarian.....	61	74	73	97	126	148
Chinese.....	13	18	20	26	22	32
French.....	20	19	12	11	12	11
German.....	18	28	34	32	29	23
Italian.....	94	114	117	102	95	68
Russian.....	41	35	49	51	53	86
Scandinavian <sup>2</sup> .....	24	26	25	30	28	29
Other foreign.....	39	51	39	40	65	54
Totals.....	1,865	1,895 <sup>3</sup>	1,968	2,003	2,064	2,118

<sup>1</sup>Includes one in Selkirk Asylum; no details given.<sup>2</sup>Including Danish, Norwegian, and Swedish.<sup>3</sup>Includes one not given (insane).

## ADMINISTRATION.

## 38.—Classification of Convicts, 1911-1916—concluded.

Classes.	1911.	1912.	1913.	1914.	1915.	1916.
	No.	No.	No.	No.	No.	No.
By Conjugal State—						
Single.....	1,251	1,280	1,291	1,306	1,356	1,358
Married.....	548	545	615	631	634	677
Widowed.....	65	70	59	63	70	79
Divorced.....	—	—	3	3	4	4
<b>Totals.....</b>	<b>1,865<sup>1</sup></b>	<b>1,895</b>	<b>1,968</b>	<b>2,003</b>	<b>2,064</b>	<b>2,118</b>
By Sex—						
Male.....	1,839	1,875	1,941	1,977	2,033	2,081
Female.....	26	20	27	26	31	37
<b>Totals.....</b>	<b>1,865</b>	<b>1,895</b>	<b>1,968</b>	<b>2,003</b>	<b>2,064</b>	<b>2,118</b>
By Social Habits—						
Abstainers.....	311	281	283	310	359	376
Temperate.....	848	944	995	1,016	987	1,008
Intemperate.....	704	666	687	677	717	734
<b>Totals.....</b>	<b>1,865<sup>2</sup></b>	<b>1,895<sup>3</sup></b>	<b>1,968<sup>4</sup></b>	<b>2,003</b>	<b>2,064<sup>1</sup></b>	<b>2,118</b>
By Educational Status—						
Cannot read or write.....	253	273	229	247	277	300
Can read only.....	96	30	20	27	34	—
Can read and write.....	1,514	1,591	1,719	1,729	1,753	1,818
<b>Totals.....</b>	<b>1,865<sup>2</sup></b>	<b>1,895<sup>1</sup></b>	<b>1,968</b>	<b>2,003</b>	<b>2,064</b>	<b>2,118</b>
By Religion—						
Adventist.....	—	—	—	2	—	—
Anglican.....	317	326	345	348	340	330
Baptist.....	83	84	85	97	112	101
Buddhist.....	18	15	15	31	20	40
Congregationalist.....	3	3	6	4	9	7
Greek Catholic.....	11	4	30	33	45	52
Jewish.....	19	18	12	12	17	26
Lutheran.....	54	61	60	79	71	71
Methodist.....	182	195	215	218	218	205
Mormon.....	—	—	—	—	1	1
Presbyterian.....	219	203	213	216	228	222
Quaker.....	2	1	—	—	—	—
Roman Catholic.....	930	934	947	929	961	1,025
Salvation Army.....	3	3	3	4	5	7
Unitarian.....	2	2	1	1	2	—
Universalist.....	—	1	—	2	—	—
Other creeds.....	8	40	27	8	27	18
No creed.....	14	5	9	19	8	13
<b>Totals.....</b>	<b>1,865</b>	<b>1,895</b>	<b>1,968</b>	<b>2,003</b>	<b>2,064</b>	<b>2,118</b>

<sup>1</sup>Includes one not given (insane).<sup>3</sup>Includes four not given (insane).<sup>2</sup>Includes two not given (insane).<sup>4</sup>Includes three not given (insane).

## STATISTICS OF DIVORCE.

## 39.—Statistics of Divorce, 1868-1916.

Year.	Granted by the Dominion Parliament.				Granted by the Courts.		
	Ontario.	Quebec.	Northwest Territories.	Manitoba.	Nova Scotia.	New Brunswick.	British Columbia.
1868.....	—	—	—	—	3	—	—
1869.....	1	1	—	—	1	2	—
1870.....	—	—	—	—	2	1	—
1871.....	—	—	—	—	2	2	—
1872.....	—	—	—	—	1	3	—
1873.....	1	—	—	—	3	—	—
1874.....	—	—	—	—	—	—	—
1875.....	1	—	—	—	4	—	—
1876.....	—	—	—	—	1	2	—
1877.....	3	—	—	—	5	—	1
1878.....	2	1	—	—	1	3	1
1879.....	1	—	—	—	1	2	—
1880.....	—	—	—	—	3	2	—
1881.....	—	—	—	—	2	2	3
1882.....	—	—	—	—	4	1	1
1883.....	—	—	—	—	3	7	3
1884.....	1	—	—	—	4	3	2
1885.....	4	1	—	—	4	3	—
1886.....	1	—	—	—	4	5	1
1887.....	2	3	—	—	1	3	1
1888.....	2	1	—	—	3	1	2
1889.....	3	1	—	—	3	6	2
1890.....	2	—	—	—	4	3	3
1891.....	4	—	—	—	3	—	3
1892.....	1	1	1	1	3	5	3
1893.....	3	4	—	—	5	2	1
1894.....	5	1	—	—	1	—	2
1895.....	3	—	—	—	5	5	—
1896.....	—	—	—	—	6	1	3
1897.....	1	—	—	—	2	—	3
1898.....	2	1	—	—	2	5	6
1899.....	2	1	1	—	5	3	2
1900.....	2	1	1	1	1	1	4
1901.....	2	—	—	—	10	—	7
1902.....	2	—	—	—	9	—	3
1903.....	2	1	1	1	8	4	4
1904.....	5	1	—	—	6	2	5
1905.....	2	3	2	2	6	2	18
			Alber. Sask.				
1906.....	10	3	1	—	5	1	17
1907.....	3	1	—	—	8 <sup>1</sup>	3	9
1908.....	8	—	—	—	5	5	12
1909.....	8	4	1	1	2	8 <sup>1</sup>	22
1910.....	14	2	—	1	3	13 <sup>1</sup>	6
1911.....	13	4	2	—	3	10 <sup>1</sup>	6
1912.....	9	3	2	1	1	4	4 <sup>2</sup>
1913.....	20	4	4	1	6	—	4
1914.....	18	7	4	2	2	10	12
1915.....	10	3	3	1	1	13	6
1916.....	18	1	1	2	2	14	11

NOTES.—In Prince Edward Island only one divorce has been granted from 1868 to 1916; the divorce was granted in 1913. In British Columbia, in addition to the divorce, 13 judicial separations have been granted: one in 1892, one in 1893, one in 1899, two in 1900, two in 1903, three in 1913, three in 1914; "Decree Nisi" has been granted in 20 cases: four in 1900, two in 1909, six in 1912, five in 1913 and three in 1914.

<sup>1</sup>Includes one judicial separation. <sup>2</sup>Includes one not effective till court costs are paid.



## ADMINISTRATION.

**List of the Principal Acts of Parliament administered by Departments of the Government of the Dominion of Canada, as compiled from information supplied by the respective Departments.**

Numbers within brackets denote the chapter of the Revised Statutes of Canada, 1906 (R. S. C. 1906).

**Justice.**—Department of Justice (21); Solicitor General's (22); Northwest Territories (62); Yukon (63); Dominion Police (92); Judges (138); Supreme Court (139); Exchequer Court (140); Admiralty (141); Petition of Right (142); Criminal Code (146); Penitentiary (147); Prisons and Reformatories (148); Identification of Criminals (149); Ticket of Leave (150); Fugitive Offenders' (154); Extradition (155); Juvenile Delinquents (7-8 Edw. VII, c. 40, 1908).

**External Affairs.**—The functions and duties of this Department are defined by the Department of External Affairs Act, 1912 (2 Geo. V, c. 22) and by the International Boundary Waters Treaty Act (1-2 Geo. V, 1911, c. 28), as amended by the statute of April 3, 1914 (4 Geo. V, c. 5).

**Customs.**—Customs Tariff; Customs; Canada Shipping (in part); Infectious and Contagious Diseases affecting Animals (in part); Destructive Insect and Pest (in part); Export; Copyright (in part); Petroleum and Naphtha Inspection (in part).

**Post Office.**—Post Office; Government Annuities; Pacific Cable; Parcel Post; Special War Revenue, 1915.

**Agriculture.**—Experimental Farm Stations; Inspection and Sale, Part IX (Fruit and Fruit Marks); Dairy Industry; Cold Storage; Cold Storage Warehouse; Milk Test; Seed Control; Live Stock Pedigree; Animal Contagious Diseases; Meat and Canned Foods; Destructive Insect and Pest; Agricultural Instruction; Quarantine; Leprosy; Public Works (Health); Patent; Trade Mark and Design; Timber Marking; Copyright.

**Interior.**—Department of the Interior; Immigration; Dominion Lands; Dominion Lands Surveys; Forest Reserves and Parks; Irrigation; Railway Belt; Railway Belt Water; Yukon; Yukon Placer Mining.

**Finance.**—Department of Finance and Treasury Board; Appropriation; Civil Service; Superannuation and Retirement; Contingencies; Consolidated Revenue and Audit; Currency; Ottawa Mint; Dominion Notes; Provincial Subsidies; Bank; Savings Bank; Penny Bank; Quebec Savings Banks; Loan Companies; Trust Companies; Bills of Exchange; Interest; The Special War Revenue Act, 1915 (in part); The Business Profits War Tax Act, 1916.

**Insurance.**—Insurance; Civil Service Insurance.

**Militia and Defence.**—Militia and Defence of Canada; Royal Military College; Militia Pension; An Act to enable Canadian Soldiers on active military service during the present war to exercise their electoral franchise.

**Public Works of Canada.**—Public Works (39); Government Harbours and Piers, s. 5 (112); Navigable Waters Protection, s. 7 (115); Telegraph Secrecy (126); Dry Dock Subsidies (9-10 Edw. VII, 1910, c. 17); An Act to amend the Navigable Waters Protection Act (9-10 Ed. VII, 1910, c. 44); An Act to authorize the payment of a subsidy to the Collingwood Shipbuilding Co., Ltd. (2 Geo. V, 1912, c. 17); An Act to Amend the Dry Dock Subsidies Act, 1910 (2 Geo. V, 1912, c. 20); An Act to amend the Government Works Toll Act, R.S.C. 1906, c. 40 (2 Geo. V, 1912, c. 26); An Act to incorporate the National Gallery of Canada (3-4 Geo. V, 1913, c. 33); An Act to authorize the payment of a subsidy to the Western Dry Dock and Shipbuilding Co., Ltd. (3-4 Geo. V, 1913, c. 57); An Act to amend the Dry Dock Subsidies Act, 1910 (4-5 Geo. V, 1914, c. 29).

**Trade and Commerce.**—The Canada Grain; Inspection and Sale; Culling and Measuring of Timber in the provinces of Ontario and Quebec; Manufacture of Binder Twine in Canada; Petroleum Bounty, 1909; Bounties on Lead contained in lead-bearing ores mined in Canada; Gold and Silver Marking; Census and Statistics; Bounties on Zinc.

**Labour.**—Conciliation and Labour (96); Industrial Disputes Investigation (6-7 Edw. VII, 1907, c. 20); Combines Investigation (9-10 Edw. VII, 1910, c. 2); Fair Wages Resolution of the House of Commons; White Phosphorus Matches (4-5 Geo. V, 1914, c. 12).

**Secretary of State.**—Companies; Naturalization (c. 77 R.S.C., 1906, and c. 44, 1914); Canada Temperance; Civil Service; Board of Trade; Trade Unions.

## LIST OF DOMINION ACTS OF PARLIAMENT.

**Naval Service.**—Naval Service (9-10 Edw. VII, 1910, c. 43); Radiotelegraph (3-4 Geo. V, 1913, c. 43) and Regulations issued thereunder; Fisheries (4-5 Geo. V, 1914, c. 8) and Regulations issued thereunder; Fish Inspection (4-5 Geo. V, 1914, c. 45).

**Railways and Canals.**—Department of Railways and Canals (35); Government Railways (36); Intercolonial and P.E.I. Railway Employees' Provident Fund (6-7 Edw. VII, c. 22); The Government Railways Small Claims (9-10 Edw. VII, c. 26). The Railway Act (Companies) (37) and its amendments confer certain powers upon the Minister of the Department. In the case of subsidized railways the authorizing Acts are carried out under the Department, which has also certain jurisdiction with respect to the Grand Trunk Pacific and the Canadian Northern Railway Acts, where Government guarantee has been given, and with respect to the Transcontinental Railway.

**Marine.**—Department of Marine and Fisheries; Government Vessels Discipline; Government Harbours and Piers; Canada Shipping and amending Acts (6-7 George V, cc. 12 and 13); Navigable Waters Protection; Quebec Harbour and River Police; Live Stock Shipping; An Act to amend the Vancouver Harbour Commissioners' Act (6-7 George V, c. 9).

**Indian Affairs.**—The Indian Act, 1906, with amendments to date.

**King's Printer and Controller of Stationery.**—Public Printing and Stationery (80).

**Inland Revenue.**—Inland Revenue; and the Acts respecting the adulteration of food and other articles; Weights and Measures; Inspection of Electricity and Inspection of Gas and Gas Meters; Public Ferries; Proprietary or Patent Medicines; Agricultural Fertilizers; Commercial Feeding Stuffs; Petroleum and Naphtha; Special War Revenue, 1915.

**Mines.**—Geology and Mines (6-7 Edw. VII, 1907, c. 29).

**Commission of Conservation.**—Conservation Act (8-9, Edw. VII, c. 27, 1909) and amending Acts (9-10, Edw. VII, c. 42, 1910; 3-4, Geo. V, c. 12, 1913).

**List of Principal Publications of Departments of the Government of the Dominion of Canada, as compiled from information supplied by the respective Departments.**

**Customs.**—Annual Report containing Tables of Imports, Exports and Navigation. Monthly Statements of Imports entered for Consumption and Exports of the Dominion.

**Post Office.**—Annual Report of the Postmaster General. Official Postal Guide. Regulations as to parcel post, rural mail delivery and government annuities.

**Agriculture.**—The Agricultural Gazette of Canada, Subscription, \$1 per year (monthly). Annual Reports of the Minister, of the Experimental Farms and Stations, of the Dairy and Cold Storage Commissioner, of the Veterinary Director General and of the Entomological Branch. Bulletins, pamphlets, circulars and Seasonable Hints of the Experimental Farms Branch on a great variety of agricultural subjects, including publications of the following ten divisions: Field Husbandry; Animal Husbandry; Horticulture; Cereal; Chemistry; Forage Plants; Botany; Poultry and Tobacco. Guide to the Experimental Farms and Stations. Bulletins of the Dairy and Cold Storage Branch relating to the history of the dairying and cold storage industry in Canada; the making of butter and cheese, cow-testing, dairying experiments; co-operation, etc. Report of the Canadian Record of Performance; sheep and swine; beef raising; horse breeding; poultry and the marketing of eggs. Bulletins of the Health of Animals Branch, with regulations as to contagious abortion; rabies; sheep scab; actinomycosis; anthrax; glanders; hog cholera; maladie du coit; tuberculosis; quarantine; meat inspection and foot-and-mouth disease. Bulletins and Reports of the Seed Branch as to seed-testing; the production and use of seed grains and the Seed Control Act. Bulletins and Circulars of the Entomological Branch and instructions to importers of nursery stock. Reports of the Canadian Seed Growers' Association. Fodder and Pasture Plants, by George H. Clark, B.S.A., and M. Oscar Malte, Ph.D., 143 pages, 27 plates, price 50 cents. Bulletin on the Maple Sugar Industry; Agricultural War-Book; Agricultural Instruction Act.

**NOTE.**—The foregoing is a selection from the publications of the Department. A complete list of publications available for distribution is issued, and so long as the supply lasts copies of publications will be sent free on application to the Publications Branch, Department of Agriculture, Ottawa.

## ADMINISTRATION.

**Interior.**—Annual Report, including Reports from the Dominion Lands, Immigration, Surveys, Dominion Parks, Forestry, Irrigation and Water Power branches. Pamphlets, reports, bulletins, etc., of the respective branches:—*Immigration Branch*: Canada West (English, French, Danish, Norwegian, Swedish); Atlas of Canada (English and French); Country Called Canada (English). What Irishmen say of Canada; Canada as Seen Through Scottish Eyes; Canada—The Land of Opportunity (English); Where Should You Go? Settling on Canada's Free Land; Classes Canada Calls For; Homestead Regulations; Woman's Work in Canada; Prince Edward Island; Nova Scotia Pamphlet; New Brunswick Pamphlet; Eastern Quebec—Région de Lac St. Jean, etc. (French and English); Western Quebec—Timiskaming, etc. (French and English); Eastern Townships of Quebec; Ontario — Canada's Farthest South; Ontario — Improved Ontario Farms; Ontario—The Heart of Canada; Ontario—Thunder Bay; Kenora and Rainy River Districts of New Ontario; Rivière de la Paix; Prairie Provinces in 1912; British Columbia—Canada's Western Heritage; Canadian Winter; Law and Regulations respecting Immigration and Immigrants; Immigration Facts and Figures. *Topographical Surveys*: (1) Annual Report of the Topographical Surveys Branch, and accompanying maps; (2) Manual of Instruction for the Survey of Dominion Lands. Price 50c. Supplement to the Manual. Price 50c. (3) Rules and Regulations of the Board of Examiners for Dominion Land Surveyors, and programme of the subjects of the various examinations. (4) The Selkirk Range (in two volumes), by A. O. WHEELER, F.R.G.S. Price \$1. (5) Copying Camera of the Surveyor General's Office. (6) Photographic Methods Employed by the Canadian Topographical Survey, by A. O. WHEELER, F.R.G.S. (7) Precise Measuring with Invar Wires and the Measurement of the Kootenay Base, by P. A. CARSON, D.L.S. (8) Report on Levelling Operations, from 1908 to 1914, by J. N. WALLACE, D.L.S. Price 35c. (9) Triangulation of Part of the Railway Belt of British Columbia, by H. PARRY, D.L.S. (10) Description, Adjustments and Methods of Use of the 6" Micrometer Block Survey Reiterating Transit Theodolite, by W. H. HERBERT, B.Sc. (11) Papers on Descriptions for Deeds. (12) Description of the townships surveyed in the different Provinces, issued yearly since 1909. (13) Description of the surveyed townships in the Peace River District. (14) Descriptions of lands comprised within the Fort Pitt Sectional Map, consisting of townships 49 to 56, ranges 15 to 28, west of the third meridian. (15) Description of Surveyed Lands in the Railway Belt of British Columbia (in three parts). (16) Extracts from Reports on townships east of the principal meridian, received from surveyors to July 1st, 1914. (17) Extracts from Reports on townships 1 to 16 west of the principal meridian, received from surveyors to July 1st, 1914. (18) Extracts from Reports on townships 17 to 32 west of the principal meridian, received from surveyors to July 1st, 1914. (19) Extracts from Reports on townships 33 to 88 west of the principal meridian, received from surveyors to March 31st, 1915. (20) Extracts from reports on townships 1 to 16 west of the second meridian, received from surveyors to March 31st, 1915. (Publications of the Topographical Surveys Branch may be obtained on application to the Distribution Office, Department of Public Printing and Stationery, for No. 1; to the Secretary, Board of Examiners for Dominion Land Surveyors, for No. 3; to the Secretary, Department of the Interior, for No. 4; and to the Surveyor-General for the other Nos.). *Dominion Astronomical Observatory*: Annual Reports of Chief Astronomer for years 1904 to 1911, Publications of Dominion Observatory, Vol. 1—No. 1, Stereographic Projection Tables by OTTO KLOTZ, LL.D., F.R.A.S.; No. 2, Precise Levels, by D. H. NELLES, D.L.S.; No. 3, Precise Levelling, by F. B. REID, D.L.S.; No. 4, Orbit of 88  $\delta$  Tauri, by W. E. HARPER, M.A.; No. 5, Earthquake of April 28, 1913, by OTTO KLOTZ, LL.D., F.R.A.S.; No. 6, Spectrum of Nova Geminorum, by J. S. PLASKETT, B.A., F.R.S.C.; No. 7, Experiments regarding Efficiency of Spectrographs, by J. S. PLASKETT, B.A., D.Sc., F.R.S.C.; No. 8, Precise Levelling, by F. B. REID, D.L.S.; No. 9, Orbit of  $\sigma$  Geminorum, by W. E. HARPER, M.A.; No. 10, Orbit of  $\delta$  Persei, by J. B. CANNON, M.A.; No. 11, Orbits of the Spectroscopic Components of  $\delta$  Boötis, by W. E. HARPER, M.A.; No. 12, Radial Velocity of  $\rho$  Leonis, by W. E. HARPER, M.A.; No. 13, Orbit of  $\xi$  Persei from the H and K Lines, by J. B. CANNON, M.A.; No. 14, Orbit of  $\beta$  Coronæ Borealis, by J. B. CANNON, M.A.; No. 15, Measures of  $\gamma$  Aquarii, by J. B. CANNON, M.A.; No. 16, Measures of  $\sigma$  Leonis, by J. B. CANNON, M.A. Vol. 2—No. 1, Precise Levelling, by F. B. REID, D.L.S.; No. 2, Spectroscopic Binary  $\theta^2$  Tauri, by J. S. PLASKETT, B.A., D.Sc., F.R.S.C.; No. 3, Orbit of  $\omega$  Cassiopeia, by R. K. YOUNG,



## DOMINION GOVERNMENT PUBLICATIONS.

Ph.D.; No. 4, Orbit of 136 Tauri, by J. B. CANNON, M.A.; No. 5, Orbits of the Spectroscopic Components of 50 Draconis, by W. E. HARPER, M.A.; No. 6, Orbit of  $\zeta$  Andromedæ, by J. B. CANNON, M.A.; No. 7, A Meteor Star Atlas, by R. K. YOUNG, Ph.D.; No. 8, Orbit of the Spectroscopic Binary 1149, Groombridge, by W. E. HARPER, M.A.; No. 9, Orbit of the Spectroscopic Binary 23, Cassiopeiæ, by R. K. YOUNG, Ph.D.; No. 10, Gravity, by F. A. McDiarmid, B.A.; No. 11, Tests made to Ascertain where Conditions were Most Suitable for the 72-inch Reflector, by W. E. HARPER, M.A.; No. 12, Mean Distance of Stars whose Radial Velocities, Proper Motion and Parallaxes have been Determined, by R. K. YOUNG, Ph.D.; No. 13, Orbit of B.A.C. 5890, by T. H. PARKER, M.A.; No. 14, Orbit of  $\mu$  Persei, by J. B. CANNON, M.A.; No. 15, Orbit of Boss 3323, by J. B. CANNON, M.A. Vol. 3—No. 1, Earthquake of Feb. 10, 1914, by OTTO KLOTZ, LL.D., Ph.D., F.R.A.S.; No. 2, Seismological Tables, by OTTO KLOTZ, LL.D., Ph.D., F.R.A.S.; No. 3, The Spectroscopic Orbits of 12 Lacertæ, by R. K. YOUNG, Ph.D.; No. 4, Orbit of the Spectroscopic Binary A Boötis, by R. K. YOUNG, Ph.D.; No. 5, Orbit of the Spectroscopic Binary  $\alpha$  Trianguli, by W. E. HARPER, M.A.; No. 6, Precise Levelling, by F. B. REID, D.L.S.; No. 7, Orbit of the Spectroscopic Binary 14 Aurigæ, by W. E. HARPER, M.A.

*Dominion Parks.*—A Sprig of Mountain Heather; Glaciers of the Rockies and Selkirks; Classified Guide to Fish and their Habitat in the Rocky Mountains Park; The Nakimu Caves; Guide to the Geology of the Canadian National Park on the C.P.R. between Calgary and Revelstoke. (1) Handbook to the Rocky Mountains Park Museum; Hints to Householders re Fire Protection.

*Forestry.*—Annual Reports of the Director of Forestry, 1905 to 1908, inclusive, and 1913 to 1916. Bulletins (where number and title are omitted, the document is out of print): (1) Tree Planting on the Prairie; (8) Forest Products of Canada, 1908; Forest Products of Canada, 1909; (11) Lumber, Square Timber, Lath and Shingles; (12) Pulpwood; (14) Cross-ties-purchased; (15) Forest Products of Canada, 1909 (being Nos. 11, 12, 13, 14, 19 and 20), French edition only; (16) Forest Fires and Railways; Forests Products of Canada, 1910; (22) Cross-ties; (23) Timber used in Mining Operations; (24) Wood-using Industries of Canada, 1910; Agricultural Implements and Vehicles, Furniture and Cars and Veneer; (27) Forest Products of Canada, 1910; Cooperage; (29) Timber Conditions in the Lesser Slave Lake Regions; (32) The Turtle Mountain Forest Reserve; (33) Forest Conditions in the Rocky Mountains Forest Reserve; Forest Products of Canada, 1911; (34) Lumber, Square Timber, Lath and Shingles; (35) Poles and Cross-ties; (36) Wood-using Industries of Ontario; (37) Forest Products of Canada, 1911 (being Nos. 30, 31, 34 and 35); Forest Products of Canada, 1912; (38) Pulpwood; (39) Poles and Ties; (40) Lumber, Square Timber, Lath and Shingles; (42) Co-operative Forest Fire Protection; (44) Wood-using Industries of the Maritime Provinces; Forest Products of Canada, 1913; (46) Pulpwood Consumption; (47) Poles and Cross-ties; (48) Lumber, Lath and Shingles; (49) Treated Wood-block Paving; (50) Wood-using industries of the Prairie Provinces; (51) Game Preservation in the Rocky Mountains Forest Reserve; (52) Forest Products of Canada, 1913 (being Nos. 46, 47 and 48); (53) Timber Conditions in the Smoky River Valley and Grand Prairie Country; Forest Products of Canada, 1914; (54) Pulp Wood; (55) Poles and Cross-ties; (56) Lumber, Lath and Shingles; (57) Forest Products of Canada, 1914 (being 54, 55 and 56); Forest Products of Canada, 1915; (58a) Lumber, Lath and Shingles; (58b) Pulpwood; (58c) Poles and Cross-ties. Circulars: (5) Planning and Tree Plantation for a Prairie Homestead; (6) Preservative Treatment of Fence posts; (7) Manitoba, a Forest Province; (8) The Forest Products Laboratories; (9) Chemical Methods for Utilizing Wood Wastes; (11) The Relation of Forestry to the Development of the Country.

*Irrigation.*—Annual Irrigation Reports, 1912 to 1915. The Annual Reports of the Branch previous to 1912 are included in the Annual Reports of the Department. Annual Stream Measurements Reports, 1909 to 1915; Reports of Irrigation Surveys and Inspections, 1915 and (1915-16); Reports of the Western Canada Irrigation Association Conventions (1st to 10th); Report of the International Irrigation Congress, 1914. Bulletins: (1) Irrigation in Saskatchewan and Alberta; (2) Alfalfa Culture; (3) Climatic and Soil Conditions in C.P. Ry. Co.'s Irrigation Block; (4) Duty of Water Experiments and Farm Demonstration Work. Pamphlets: Address by Mr. S. G. PORTER on "Practical Operation of Irrigation Works;"



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Address by DR. RUTHERFORD on "Inter-dependence of Farm and City"; Addresses by Mr. DON H. BARK on "The Actual Problem that confronts the Irrigator," "Practical Irrigation Hints for Alberta," and "Alfalfa Growing." *Dominion Water Powers*: Annual Reports for 1912-13 to 1915-16. The Annual Reports of the Branch previous to 1913 are included in the Annual Report of the Department. *Water Resources Papers*: (1) Report of the Railway Belt Hydrometric Survey for 1911-12, by P. A. CARSON; (2) Report of Bow River Power and Storage Investigations, by M. C. HENDRY; (3) Report on Power and Storage Investigations, Winnipeg River, by J. T. JOHNSTON; (4) Report of the Manitoba Hydrometric Survey to the end of year 1914, by M. C. HENDRY; (5) Preliminary Report on the Pasquia Reclamation Project, by T. H. DUNN; (6) Report on Cost of Various Sources of Power for Pumping in Connection with the South Saskatchewan Water Supply Diversion Project, by H. E. M. KENSIT; (7) Report on the Manitoba Water Powers, by D. L. McLEAN, S. S. SCOVEL and J. T. JOHNSTON; (8) Report of the British Columbia Hydrometric Survey, for 1913, by R. G. SWAN; (9) Report of Red River Navigation Surveys, by S. S. SCOVEL; (10) General Guide for Compilation of Water Power Reports of Dominion Water Power Branch, prepared by J. T. JOHNSTON; (11) Final Report on the Pasquia Reclamation Project, by T. H. DUNN; (12) Report on Small Water Powers in Western Canada and Discussion of Sources of Power for the Farm, by A. M. BEALE; (13) Report on the Coquitlam-Buntzen Hydro-Electric Development, by G. R. G. CONWAY; (14) Report of the British Columbia Hydrometric Survey for 1914, by R. G. SWAN; (15) Report of the Water Powers of Alberta and Saskatchewan, by C. H. ATTWOOD; (16) Report of the Water Powers of Canada. A series of five pamphlets prepared for distribution at the Panama-Pacific Exposition, 1915, by G. R. G. CONWAY, P. H. MITCHELL, H. G. ACRES, F. T. KAELIN and K. H. SMITH; (17) Canadian Hydraulic Power Development and Electric Power in Canadian Industry, by C. H. MITCHELL; (18) Report of the British Columbia Hydrometric Survey for 1915, by R. G. SWAN; (19) Report of the Manitoba Hydrometric Survey for 1915, by M. C. HENDRY; (20) Report on the Interest dependent on Winnipeg River Power, with special reference to the capital invested and the labour employed, by H. E. M. KENSIT; (21) Report of the British Columbia Hydrometric Survey, for 1916, by R. G. SWAN; (22) Report of the Manitoba Hydrometric Survey, for 1916, by M. C. HENDRY. *Natural Resources Intelligence*.—The Unexploited West. Preparing Land for Grain Crops on the Prairie. The Peace River Country. Handbook for the Information of Intending Settlers. The Athabaska Country. Maps: Manitoba Homestead Map. Saskatchewan Homestead Map. Southern Alberta Homestead Map. Northern Alberta Homestead Map. Cereal Map of Manitoba. Cereal Map of Saskatchewan. Cereal Map of Alberta. British Columbia Dominion Railway Belt Homestead Map (2 sheets). Sectional Sheets of Dominion Railway Belt in British Columbia (4 sheets). Combined Land and Pre-emption Map of Manitoba, Saskatchewan and Alberta. Grande Prairie, Peace River and Grouard Land Districts. Elevator Map of Manitoba, Saskatchewan and Alberta. Bank Map of Manitoba, Saskatchewan and Alberta. Land Registration and Judicial Districts Map of Manitoba, Saskatchewan and Alberta. Bank Map of the Maritime Provinces. Map of Canada (fifty-eight miles to one inch), for School Teachers and Officials of Public Institutions only. Small Map of Canada (200 miles to one inch). *Mining Lands and Yukon*: The Yukon Territory: Its History and Resources. *Chief Geographer*: Statistics of the Dominion of Canada.

**Finance.**—Annual Reports on the Public Accounts of the Dominion of Canada. Loan and Trust Companies. Monthly Statement of the Chartered Banks of Canada. Unclaimed Balances in the Chartered Banks. List of Shareholders in Chartered Banks.

**Insurance.**—Quarterly Statement of List of Licensed Companies. Annual Abstract of Statements of Insurance Companies in Canada (subject to correction). Annual Reports of the Insurance Department, Vol. I (Fire and Miscellaneous), Vol. II (Life Companies). Annual List of Securities held by Insurance Companies in Canada with Department's Valuation thereof.

**Militia and Defence.**—Annual Report. Quarterly Militia List. Militia Daily Orders. Militia General Orders.

## DOMINION GOVERNMENT PUBLICATIONS.

**Trade and Commerce.**—Annual Report: Part I, Imports into and Exports from Canada (itemized and general statements; Part II, Canadian Trade with (1) France, (2) Germany, (3) United Kingdom, (4) United States; Part III, Canadian Trade with British and Foreign Countries, except France, Germany, United Kingdom and United States; Part IV, Miscellaneous Information (Bounties; Lumber and Staple Products; Revenue and Expenditure of the Department; Statistical Record of the Progress of Canada; Tonnage Tables; Trade Commissioner Service); Part V, Grain Statistics; Part VI, Subsidized Steamship Services; Part VII, Trade of British and Foreign Countries. Monthly Reports of Trade Statistics; Weekly Bulletin circulated within Canada only, containing Reports of Trade Commissioners and general trade information. Miscellaneous publications during 1914: Directory of Foreign Importers, Directory of Canadian Exporters. "The German War and its Relation to Canadian Trade," Timber Import Trade of Australia, List of Licensed Elevators, Grain Inspection in Canada, Canada and the British West Indies, Canada the Country of the Twentieth Century. Publications of the Census and Statistics Office: Canada Year Book. Report on the Census of 1911, Vol. I (Areas and Population); Vol. II (Religions, Origins, etc.); Vol. III (Manufactures); Vol. IV (Agriculture); Vol. V (Forest, Fishery, Fur and Mineral Production); Vol. VI (Occupations). Special Report on the Foreign-born Population. Report on the Postal Census of Manufactures, 1916. Report on the Production of Creameries and Cheese Factories, 1915 and 1916. Monthly Bulletin of Agricultural Statistics. Criminal Statistics.

**Labour.**—Monthly: The Labour Gazette (published at the nominal subscription price of 20 cents per annum, averaging 130 or 140 pages). Annually: Report of Department of Labour. Report of Proceedings under the Industrial Disputes Investigations Act, 1907. Report of Proceedings under the Combines Investigation Act. Wholesale Prices in Canada, 1915 (a report is published for each year about May or June). Labour Organization in Canada, 1915 (a report is published for each year about May or June). Special Reports: Strikes and Lockouts in Canada, 1901-1912 (published in October, 1913). Report of Royal Commission on Industrial Training and Technical Education (Four volumes). Special Bulletins, etc.

**Secretary of State.**—Annual Report. Civil Service List (annual). Information respecting Incorporation of Companies; List of Companies incorporated under the various Companies Acts of the Parliament of Canada from 1867 to December 31st, 1913. Copies of Proclamations, Orders in Council and Documents relating to the European War.

**Naval Service.**—Annual Report. Royal Naval College of Canada Calendar, containing general idea of scheme of training, prospects of Cadets, regulations for entry, etc. *Naval Branch:* Regulations for the Entry of Naval Instructors and of Medical Officers. *Tidal and Current Survey:* Tide Tables, published annually, for the East Coast, Pacific Coast and Hudson Bay and Strait; also abridged editions for St. Lawrence region, Bay of Fundy and Strait of Georgia. Currents in the Gulf of St. Lawrence, the entrance to the St. Lawrence, and the South-east Coasts of Newfoundland. Tables of Currents in the Bay of Fundy. Tide Levels on the Pacific Coast. *Radiotelegraph Branch:* Proceedings of the International Radiotelegraph Conference of London, 1912. Chart showing the Radiotelegraph stations in the Dominion of Canada. Postmaster General's Handbook for Radiotelegraph Operators (Instructions re handling of traffic, etc.) *Hydrographic Survey:* Sailing directions, St. Lawrence Pilot, above and below Quebec. Sailing directions for the Canadian shores of Lake Huron and Georgian Bay. Charts of the River St. Lawrence above and below Quebec, St. Lawrence River above Montreal, viz., Lake St. Louis, Lake St. Francis, Coteau Landing to Lancaster, Lancaster Bar to Cornwall. Ottawa River; Lake of Two Mountains, Eastern Portion and Western Portion. Lake Winnipeg. Red River to Berens River, Berens River to Nelson River. Lake Ontario. Main Duck Island to Presqu'île, Presqu'île Bay. Lake Erie (plans of harbours). Lake Huron. Georgian Bay and North Channel. Lake Superior. Pacific Coast. Hudson Bay. *Fisheries Branch:* Fisheries Annual Report. Biological Report. Reports of Fisheries of Hudson Bay. Fish and How to Cook it. Report of Fish Culture (contained in Fisheries Annual Report). Check List of Canadian Fishes. Monthly Bulletin of Sea Fishery Statistics.

## ADMINISTRATION.

**Railways and Canals.**—Annual Report of the Department. Annual Reports of the Commissioners of the Transcontinental Railway and of the Board of Railway Commissioners for Canada. Annual Reports of the Comptroller of Statistics comprising (1) Railways; (2) Canals; (3) Telephones; (4) Telegraphs and (5) Express Companies.

**Marine.**—Marine Annual Report, containing Harbour Commissions, etc. Steamboat Inspection. List of Canadian Shipping. Reports of Expeditions to Hudson Bay. List of Lights, etc., in Canada: (a) Pacific Coast; (b) Atlantic Coast; (c) Inland Waters.

**Indian Affairs.**—Annual Report. Indian Act, 1906, with Amendments to date. Schedule of Indian Reserves, 1913. Indian Treaties and Surrenders, Vols. I, II, III.

**King's Printer and Controller of Stationery.**—The Canada Gazette, published weekly by authority, with occasional supplements and extras, subscription, \$4 per annum payable in advance, single copies, 10 cents each number. Contains weekly a list of current Government publications, as required by Order in Council 1,522. Judgments of the Board of Railway Commissioners, bi-monthly, \$3 per annum; single copies, 20 cents; Exchequer Court Reports, \$4 per annum. Prices of blue-books are in nearly every case printed upon the front cover and are based practically on the cost of paper and press work. They may be ordered direct from the Chief Clerk of Distribution, Department of Public Printing and Stationery, or through any bookseller in the Dominion.

**Inland Revenue.**—Besides the Annual Report the principal official publications issued are circulars establishing standards under Section 26 of the Adulteration of Food Act and Bulletins issued in connection with the inspection of samples collected under the provisions of this Act.

**Mines.**—The Department of Mines examines the most important mineral deposits and sections of geological interest, makes scientific investigations of the mining and metallurgical industries of Canada and carries on exploratory work in the little-known parts of the country. Detailed reports and geological maps of mining camps, and maps and notes on explored routes have been published. Memoirs have also been issued dealing with economic mineral deposits that have a wide distribution throughout the country. High grade contoured topographical maps of a number of sections have been issued in recent years. Publications also appear from time to time, giving the results of investigations in palæontology, botany, zoology, mineralogy and anthropology. A summary report of the operations for the calendar year is published annually by each Branch of the Department, *i.e.*, Geological Survey Branch and Mines Branch, and other reports appear at irregular intervals throughout the year. The total number of publications exceeds 1,600. The most important recent publications are mentioned on pp. 68 to 72 of this volume. A copy of a report or map of any particular section may be obtained by applying to the Deputy Minister, Department of Mines, Ottawa.

**Commission of Conservation.**—Annual Reports, 1910-1915. Reports on Agriculture, Fisheries, Game and Fur-bearing Animals, Forests, Minerals, Public Health, Town Planning, Waters and Water-powers. Monthly Bulletin, entitled "Conservation"; Quarterly Bulletin entitled "Conservation of Life."

**Civil Service Commission.**—Annual Report. Regulations of the Civil Service Commission. General Information respecting Civil Service Examinations.

**Other Departments.**—In addition to the publications above enumerated, Annual Reports are issued by the Department of Justice on the Penitentiaries of Canada. The Departments of External Affairs, of Public Works and of the Auditor General, The Department of Public Works has also published the Interim Report of the Georgian Bay Commission, by W. SANFORD EVANS, Chairman of the Commission.



## PROVINCIAL GOVERNMENT PUBLICATIONS.

**List of Principal Publications of the Provincial Governments of Canada, as compiled from information supplied by the respective Governments.**

NOTE.—The numbers within brackets are the numbers of the Bulletins. The publications of the larger provinces are arranged by Departments.

**PRINCE EDWARD ISLAND.**

Journal of the Legislative Assembly. Statutes of the Legislative Assembly. Royal Gazette. Annual Reports of the Provincial Auditor on Public Accounts and of the Departments of Public Works, Education, Agriculture, Falconwood Hospital (for the Insane) and Vital Statistics. Field Reports and Bulletins. Year Book and Periodical Reports of the Publicity Agent.

**NOVA SCOTIA.**

Royal Gazette. Journal of Education. Annual Reports on Public Accounts. Vital Statistics. Statistics of Incorporated Towns and Municipalities, Public Health, Education, Industries and Immigration, Agriculture, Crown Lands, Mines, Subsidized Railways and other Public Works, Rural Telephones, Humane Institutions, Public Charities, Penal Institutions, Neglected Children, Temperance and Utilities. Also Annual Reports of the Provincial Secretary, the Factory Inspector and of the Road and Game Commissioners.

**NEW BRUNSWICK.**

Annual Reports of the Auditor General, of the Board of Health, of the Departments of Education and Agriculture (including Horticulture), Annual Reports on Public Works, Crown Lands, the Hospital for the Insane, the Factory Report, Report on the Jordan Memorial Tuberculosis Sanatorium at River Glade and Report of Women's Institutes.

**QUEBEC.**

NOTE.—The titles of publications available in the English language are printed in English.

**Attorney General.**—Annual Report of Prison Inspectors; Annual Report of Public Utilities Commission.

**Provincial Secretary.**—Annual Report of the Secretary and Registrar; Annual Report of Inspectors of Reformatory Schools and Insane Asylums; Annual Report of the Superior Board of Health of the Province of Quebec; Statistical Year Book; Educational Statistics; Financial Statistics of School Corporations; Municipal Statistics (annual); Judicial Statistics (annual); Statistics of the Penal Establishments and the Benevolent Institutions (annual); The Official Gazette (weekly); The Statutes of the Province (Annual); Revised Statutes of the Province (1909); Municipal Code.

**Treasury.**—Annual Statement of Public Accounts; Annual Estimates.

**Lands and Forests.**—Annual Report of the Minister; La Gaspésie, J.-C. LANGELIER, 1885; Surveyed Townships and Explored Territories, 1889; Richesse Forestière de la Province de Québec, J.-C. LANGELIER, 1905; The Forest, FERNOW, 1905; Arbres de Commerce de la Province de Québec, 1906; Table of Families of Twelve Children, EUGENE ROUILLARD, 1904, 1906; Townships Surveyed and Territories Explored, 1908; List of Timber License Holders, 1911; List of Persons Authorized to Act as Cullers, 1911, 1912; Dictionnaire des Lacs et Rivières de la Province de Québec, EUGENE ROUILLARD, 1914; Bulletin No. 1 of the Forestry Service; Scieries et Marchands de Bois de la Province de Québec, T. GIROUX, 1913; Table of Water Powers granted by the Province of Quebec, from 1st July, 1863, to 31st December, 1913. A. AMOS; Bulletin No. 2, of the Forestry Service, PICHÉ and BEDARD, 1914; Water Powers in the Province of Quebec (Illustrated), 1917.

**Agriculture.**—*Annual Reports:* Department of Agriculture; Competition for Agricultural Merit; Dairymen's Association; Pomological Society; Report of the Quebec Society for the Protection of Plants from Insects and Fungus Diseases; Rapport des Concours de Récoltes sur pied (annual); Rapport de la Convention des Missionnaires Agricoles; Rapport des Sociétés d'Agriculture et des Cereles



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Agricoles; Journal of Agriculture and Horticulture, illustrated (monthly). *Bulletins*: On the Appearance of Crops, July; On the Yield of Crops, October; (1) Plans of Cheese Factories or Creameries and of Combined Factories; (2) Le Drainage Pratique, C. MICHAUD, 1914; (3) Les Engrais Chimiques, H. NAGANT, 1913; (4) Dix Années de Pratique et d'Expérience à la Basse-cour, Inst. d'Oka, 1914; (5) Engraissement de la Volaille, Inst. d'Oka, 1914; Culture du Tabac, GAREAU & PLANTE, 1914; (7) Le Cheval du Cultivateur, J. D. DUCHÊNE, 1914; (8) Culture des Céréales, Collège Macdonald, 1914; (9) L'Elevage du Porc à Bacon, A. HANSEN, 1914; (10) Le Potager Canadien; (11) List of Butter and Cheese Factories of the Province of Quebec; (12) Le Jardin Scolaire; (13) L'Agriculture et l'Etat Agricole; (14) La Culture du Trèfle; (15) La Culture du Blé-d'Inde Fourrager; (16) Guide de l'Arboriculteur; (17) La Culture Fruitière dans la Province de Québec; (18) Breeding and Preparing Hogs for Market; (19) La Désertion des Campagnes; (20) Hygiène de l'Alimentation; (21) Pour avoir de Belles Pommes; (22) Les Bovides; (23) Les Principales Espèces d'Insectes Nuisible et des Maladies Végétales; (24) La Grande Erreur du Pain Blanc; (25) Etude Sommaire sur les Céréales; (26) Le Blé; (27) L'Avoine; (28) L'Orge, le Seigle et le Sarrasin; (29) Sélection de la Semence; (30) Ce que doit être la Machine Animale; (31) Ce que doit être le Cheval; (32) Ce que doit être la Vache Laitière; (33) Ce que doit être le Mouton de Boucherie; (34) Ce que doit être le Porc à Bacon. *Circulars*: (1) Semis des Pépins de Pommes en Caisses; (2) Maple Sugar and Maple Syrup Industries; (3) Incubation Naturelle et Elevage Naturel; (4) La Guerre et l'Agriculture; (5) Augmentons la Production de nos Récoltes par l'Emploi de Meilleures Semences; (6) Les Semailles; (7) Alimentation Économique des Troupeaux de la Basse-cour; (8) Drainage Plans for Farmers; (9) Fruit Tree Culture; (10) Manière d'Arracher et de Conserver les Jeunes Plantes; (11) Engraissement et Préparation de la Volaille pour le Marché; (12) Production des Oeufs en Hiver; (13) L'Engraissement du Veau; (14) Competition in Fattening Bacon Hogs; (15) La Diarrhée chez les Poussins; (16) Important Advice to Farmers supplying Milk to Factories; (17) Production des Chapons pour le Marché; (18) Les Musées Scolaires Agricoles; (19) Les Expositions Scolaires Agricoles; (20) De la Culture des Arbres Fruitières. *Miscellaneous Publications*: Veterinary Medicine, J. D. DUCHÊNE, M.V., 1901; Horse Breeding, J. D. DUCHÊNE, M.V., 1903; Vache Laitière, J. D. DUCHÊNE, M.V.; La Province de Québec, A. GIRARD; The Cultivation of Fruit Trees and Shrubs; La Ruche Canadienne, A. GIRARD, 1904; Le Poulailier de la Ferme, A. GIRARD, 1904; La Province de Québec, A. BUIES, 1900; Sheep, Their Breeding and Management; Traité de Constructions Rurales, GAREAU & PLANTE, 1912; The Weeds, O.-E. DALAIRE, 1914; Culture des Arbres Fruitières, Rev. F. LÉOPOLD, 1898.

## Roads.—Annual Report of the Minister of Roads.

**Colonization, Mines and Fisheries.**—Minéralogie Pratique à l'Usage des Prospecteurs, par J. OBALSKI, 1910; The Fish and Game Clubs of the Province of Quebec, 1914; La Gaspésie, par ALFRED PELLAND; L'Elevage Domestique des Animaux à Fourrure, par E. T. D. CHAMBERS, 1914; Mines et Minerais de la Province de Québec, par THEO. C. DENIS, 1914; Note Préliminaire sur la Statistique Minérale, par THEO. C. DENIS, (annual); Rapport du Ministère de la Colonisation, etc., sur les Opérations Minières dans la Province de Québec, (annual); Report on the Copper Deposits of the Eastern Townships, by J. AUSTEN BANCROFT, 1915; Les Minerais de Fer de la Province de Québec, par P. E. DULIEUX, 1915; Extraits de Rapports sur le District de l'Ungava, par T. C. DENIS, 1915; Happy Homes in the Province of Quebec, by E. T. D. CHAMBERS, 1915; La Province de Québec, 1915; General Report of the Minister of Colonization, Mines and Fisheries, (annual); Un Nouveau Centre de Colonisation, l'Abitibi, par l'Abbé I. CARON, missionnaire-colonisateur, 1915; Relevé des Fermes à Vendre ou à Louer dans la Province de Québec, publié par le Bureau d'Immigration de Montréal, 1915; The Fisheries of the Province of Quebec, by E. T. D. CHAMBERS, 1912; La Région du Lac Saint-Jean, par HORMISDAS MAGNAN, 1916; La Région du Témiscamingue, par l'Abbé I. CARON, 1916; La Région de la Gatineau, ou Comté d'Ottawa, par HORMISDAS MAGNAN, 1916; La Région du Nord-Ouest de Montréal, ou Comté de Labelle, par HORMISDAS MAGNAN, 1916.

## Public Works and Labour.—Annual Report of the Minister.

## PROVINCIAL GOVERNMENT PUBLICATIONS.

**Public Instruction.**—Annual Report of the Superintendent; School Code, 1912; Manuel de l'Institutur Catholique, 1906; Regulations of the Catholic Committee, 1915; Regulations of the Protestant Committee, 1915; Manuel des Commissaires d'Ecoles, 1908; Education in the Province of Quebec, 1914; Protestant Rural Schools, 1912; Protestant Schools in the Eastern Townships, 1913; Memoranda of Instructions to Teachers, (1916); Financial Statement of the Superintendent of Public Instruction (annual); Mon Premier Livre (1st and 2nd parts), a fresh edition of which is furnished every year; L'Enseignement Primaire (monthly), Educational Record (quarterly). (The above two monthly magazines are distributed free of charge to all the schools of the Province by order of the Government.) Yearly circulars containing instructions to school boards and school inspectors.

**Legislative Assembly.**—Annotated Rules and Standing Orders of the Legislative Assembly of Quebec; Private Bills in the Legislative Assembly of Quebec (a manual containing the rules relative to); Agenda Paper of the Legislative Assembly; Votes and Proceedings of the Legislative Assembly; Journals of the Legislative Assembly; Reports of the Departments (Sessional Papers); Returns to Orders and Addresses of the Legislative Assembly (Sessional Papers); Report of the Clerk of the Crown in Chancery on Elections (published after every general election); Report of the Librarian of the Legislature; Government and Legislature of the Province of Quebec; List of the Chairmen and Members of the Committees of the Legislative Assembly.

## ONTARIO.

**Provincial Secretary.**—Annual Reports: Hospitals and Charitable Institutions; Hospitals for the Insane; Prisons and Reformatories; Institutions for the Feeble-minded and Epileptics; Neglected and Dependent Children. Hospital Bulletin (issued quarterly). Annual Report on the Liquor License Acts. Digest of the Ontario Social Laws. Annual Report of the Secretary and Registrar of the Province of Ontario.

**Treasury.**—Annual Statements: Estimated Expenditures; Receipts and Expenditures; Financial Statement delivered in the Legislative Assembly.

**Attorney General.**—Reports of Inspectors: Legal Offices; Registry Offices; Insurance; Division Courts. Reports of the Hydro-Electric and Workmen's Compensation Commissions.

**Registrar General.**—Vital Statistics Act. Act respecting the Solemnization of Marriage. Physicians' Pocket Reference to the International List of Causes of Death. Annual Report of Births, Marriages and Deaths.

**Board of Health.**—Public Health Act Pamphlet. Annual Report. Sewage Disposal for Residences. Facts about Flies, Mosquitoes, and How to Prevent Them. A Little Talk about the Baby. A Simple Method of Water Purification. Simple Methods of House Ventilation in Winter. Regulations: Control of Communicable Disease; Slaughter Houses, etc.; Undertakers' Circulars; Prevention of Typhoid Fever; Anti-toxin. Vaccination. Smallpox, Measles, Typhoid Fever, Scarlet Fever, Diphtheria. Consumption (General). Venereal Diseases. Consumption (General Precautions). Consumption (Personal Precautions). Instructions on Disinfection. Leaflet containing Statistics respecting Waterworks and Sewerage Systems. Regulations and Application Forms: Waterworks Approvals; Sewerage Approvals.

**Public Works.**—Annual Report of the Minister with reports of the Architect, Engineer, Superintendent of Colonization Roads and Statements of Law Clerk and Accountant. Report of the Trades and Labour Branch with Factory Inspector (Shops and Office Buildings), Chief Boiler Inspector, Inspector of Stationery Engineers and Bureau of Labour. Regulations of Boiler Inspection. Report of Timiskaming and Northern Ontario Railway Commission.

**Lands, Forests and Mines.**—Annual Report of the Minister. Preliminary Statistics of Mineral Production, issued annually by the Bureau of Mines. Annual Report of the Bureau of Mines. Forestry, Northern Ontario Development.

## ADMINISTRATION.

**Agriculture.**—Annual Reports: Minister of Agriculture; Agricultural College and Experimental Farm; Agricultural and Experimental Union; Dairymen's Associations and Dairy Schools; Live Stock and Poultry Associations; Veterinary College; Corn Growers' Association; Bureau of Industries: Part I, Agricultural Statistics; Part II, Chattel Mortgages; Part III, Municipal Statistics; Bee-keepers' Association; Fruit Growers' Association; Vegetable Growers' Association; Entomological Society; Agricultural Societies; Horticultural Societies; Farmers' Institutes; Women's Institutes. Crop Bulletins: (180) Flour and Breadmaking; (183) Notes on Cheddar Cheese Making; (187) Codling Moth; (188) Weeds of Ontario; (193) Tuberculosis of Fowls; (194) Apple Orchardring; (200) Fruit Juices; (203) Cabbage and Cauliflower, (205-6) Dairy School Bulletins: I, Cheese-making and Butter-making; II, Dairying on the Farm; (207) Ice-cold Storage on the Farm; (208) Farm Poultry and Egg Marketing Conditions in Ontario County; (209) Farm Forestry; (210) Strawberry Culture and the Red Raspberry; (211) Fruits Recommended for Ontario Planters; (212) Orchard Surveys in Dundas, Stormont and Glengarry; (214) Sheep Raising in Ontario—Does it Pay?; (216) Box Packing of Apples; (217) Farm Poultry; (218) Birds of Ontario; (219) San José and Oyster-Shell Scales; (220) Lightening Rods; (221) Value of Milk and its Products; (222) Currants and Gooseberries; (223) Fertilizers; (224) Greenhouse Construction; (225) Swine; (226) Plum Culture in Ontario; (227) Cherry Fruit Flies; (228) Farm Crops; (229) Smuts and Rusts of Grain Crops; (230) The Cherry in Ontario; (231) Vegetable Growing; (232) Field Beans; (233) Natural Swarming of Bees; (234) Co-operative Marketing; (235) Sweet Clover; (236) Home Canning; (237) The Grape in Ontario; (238) Lime and its use in Agriculture; (239) Potatoes; (240) Bacterial Diseases of Vegetables; (241) Peach Growing in Ontario; (242) Diseased Mouths a Cause of Ill-Health; (243) Nature Study, or Stories in Agriculture; (244) Hints for Settlers in Northern Ontario; (245) Food Values; (246) Suggestions on Feeding Stock.

**Education.**—Annual Report of the Minister of Education. Archæological Report. School Acts. Regulations and Courses of Study: Public and Separate Schools; Continuation Schools; High Schools and Collegiate Institutes; Summer Courses and Examinations for Teachers; Summer Model Schools for Training of Teachers; Fall Model Schools for Training of Teachers; English French Model Schools; Normal Schools for Training of Teachers. Official Calendar of the Department of Education. Recommendations and Regulations for Industrial, Technical and Art Schools. Recommendations and Regulations for Commercial High Schools, etc. Recommendations and Regulations for Agriculture and Household Science Departments. Junior High School Entrance and Junior Public School Graduation Examination Instructions. Annual Departmental Examination Instructions. Literature Selections for Examinations. Manuals: Teaching English to French-speaking pupils; Manual Training; Topics and Sub-Topics; Sewing; Education Pamphlets; Visual Aids in Teaching of History; List of Reproductions of Works of Art; Auxiliary Classes; Medical School Inspection; Laboratory Accommodation in High and Continuation Schools. Agricultural Bulletins. Instructions to Public and Separate School Inspectors on Regulations. Instructions to Public and Separate Schools Inspectors on Apportionment of Grants. Teachers' Institute Lecturers and list of Lecturers and Subjects. Junior Matriculation Regulations and Courses of Study. Manual Training and Household Science in the High, Continuation, Public and Separate Schools. Regulations for the establishment and Maintenance of Courses and for Teachers' certificates. Ontario Library Review (quarterly).

**Department of Public Highways.**—Annual Report on Highway Improvement; Report of Annual Meeting of Ontario Good Roads Association; Motor Vehicle Act and Regulations; General Specifications for Concrete Bridges; General Specifications for Steel Bridges; General Plans for Highway Bridges; Principles of Road Making; Highway Laws; Regulations Respecting Highways (County Roads); Regulations respecting Township Road Superintendents; Road Construction for Township Road Superintendents and Overseers; Report on Street Improvements in Towns and Cities.

**Department of Game and Fisheries.**—Annual Report of Game and Fisheries. Game and Fisheries Laws.



## PROVINCIAL GOVERNMENT PUBLICATIONS.

## MANITOBA.

**Agriculture.**—Annual Report. Booklets: Manitoba—First Province of Western Canada; Manitoba—The Home of Mixed Farming. Farming in Manitoba. Periodical Crop and Live Stock Reports. Map of the Province. Calendar of the Manitoba Agricultural College Bulletins: (1) Horses; (2) Twelve Noxious Weeds; (3) Care of Milk and Cream; (5) The Farm Garden; (6) Farm Poultry in Manitoba; (7) Hog Raising in Manitoba; (8) Cow Testing; (9) Repairing Farm Equipment and Roads; (10) Plans for Farm Buildings; (11) Canning and Preserving; (12) The Farm Flock; (14) Care of Cream for Creameries; (15) Boys' and Girls' Clubs; (16) Hay and Pasture Crops in Manitoba; (17) Silo Construction and Ensilage Production; (18) Bee-keeping in Manitoba; (21) Farm Cost Accounting; (22) Manual of Mechanical Drawing. Circulars: (1) The Farmers' Beef Ring; (6) A Plea for Bird Houses; (7) Our Friends, the Birds; (8) Hints on Home Nursing; (10) Meat and its Substitutes; (11) What every girl should know; (12) Poison Ivy and other Poisonous Plants; (13) Cream for Creameries; (14) Method in Dressmaking; (16) Pork-making on the Farm; (17) Servants in the House; (18) Alfalfa in Manitoba; (19) Fodder Corn in Manitoba; (20) Alfalfa Inoculation; (21) Barley Growing; (23) Improving the Farm Egg; (24) Growing Plums in Manitoba; (25) Growing Cherries in Manitoba; (26) Control of Insect Pests; (27) Pruning Trees for a Cold Climate; (28) Spray Mixtures; (29) Tree Pests and Cutworms; (30) Treatment of Alkali Soils; (31) Rye as a Weed Eradicator; (32) Cultivation after Harvest for Weed Control; (33) Marketing Manitoba's Wool Crop; (34) Care of Cream for Creameries (Ruthenian Edition); (35) Care of Cream for Creameries (German Edition); (36) Winter Feeding of Cattle, utilizing Rusted, Unthreshed Grain; (37) Hints for the Housewife on buying Dressed Poultry; (38) Rusted Wheat and the Seed Situation for 1917. Farmers' Library Extension Bulletins: (1) Lightning Control; (2) Barn Ventilation; (3) Standing Crop Competitions and Seed Fairs; (4) Control of the Sow Thistle in Manitoba; (5) Hand Selection and Harvesting of the Seed Plot; (6) Home Economics Handbook; (7) Fattening, Killing and Dressing Chickens for Market; (8) Sending the College to the Country; (9) Common Breeds of Poultry; (10) Boys' and Girls' Clubs. Home Economics Literature: Lessons on Cookery; Home Nursing; Personal Hygiene; Laundry, Sewing and Food.

**Education.**—Annual Report. Empire Day Booklet. Monthly Bulletin of Schools. Consolidation of Schools. Progress of Studies. Annual Report of the Superintendent of Neglected Children.

**Municipal Commissioner.**—Annual Report on Public Health. Statistical Information respecting the Municipalities of the Province, with names and addresses of administration and health officials of each municipality.

**Public Works.**—Annual Report, including reports on Public Institutions.

**Attorney General.**—Annual Report included in Sessional Papers. Annual Reports: Public Utilities Commission; Good Roads Commission; Government Telephone Commission.

**Provincial Treasurer.**—Public Accounts.

**Provincial Secretary.**—Annual Report.

**King's Printer.**—Manitoba Gazette. Report on Library and Museum. Journals and Sessional Papers. Statutes of the Province. List of Incorporated and Licensed Companies operating in Manitoba.

**Publicity Commissioner.**—Manitoba Public Service Bulletin (monthly).

## SASKATCHEWAN.

**Agriculture.**—Annual Report of the Department of Agriculture. Annual Report of Branches, etc.: Dairy, Live Stock, Weeds and Seed, Game, Statistics, Bureau of Labour, College of Agriculture. Acts: Horsebreeders, Brand, Game, Noxious Weeds, Dairymen's Agricultural Co-operative Associations, Live Stock Purchase and Sale, Saskatchewan Co-operative Elevator Company, Hail Insurance, Threshers' Lien, Thresher Employees, Line Fence, Stray Animals, Fires Prevention, Wolf Bounty, Agricultural Societies, Farm Machinery, Saskatchewan Co-operative Creameries, Rural Credits. Commission Reports: Elevator, Grain Markets, Agricultural Credit, Farm Machinery. Bulletins, etc.: Sheep in Saskatchewan (No. 37), Horse Breeding in Saskatchewan, Care and Feeding of Beef Cattle, Care and Feeding of Sheep, Care and Feeding of Swine, Hog Cholera, Blackleg, Foot and Mouth Disease, Stallion Enrolment in Saskatchewan (No. 39), Grading of



## ADMINISTRATION.

Cream (No. 30), Care of Milk and Cream on the Farm (No. 15), Fleshing Chickens for Market, (No. 25), Housing and Feeding Poultry.—The Care of Breeding Stock, The Management and Preservation of Eggs, Planning the Farmstead and Buildings, Plans and Specifications for Dairy Barn, Housing and Fencing for Sheep, Poultry Houses and Specifications, Farm Forestry, Summerfallow, Tillage of Prairie Land, Tillage of Stubble Land, Corn Growing in Saskatchewan, Hints to Flax Growers (No. 24), Seed Grain Treatment and Seeding, Varieties of Small Grain, Alfalfa in Saskatchewan, Alfalfa Seed Production, Winter Rye, Suggested Lines of Co-operative Production (No. 42), Co-operative Live Stock Marketing (No. 41), Household Conveniences, Recipes for Desserts and Sauces, How Debtors and Creditors may Co-operate, Practical Pointers for Farm Hands, Control of Common Insect Pests, Explanation of the Provisions of the Agricultural Co-operative Associations Act, Why the Appointment of an Agricultural Secretary is a Solution to the Weed Question, Advantages of Early Fall Cultivation, Map of Saskatchewan, Variation in Cream Test (No. 43), Laws affecting Women (No. 44), Sweet Clover, Potato Growing, Explanation of Noxious Weed Act, Braising Wire Fences, General Purpose Barns, Dairy Barns and Ice-Houses, Beef Cattle Barns, Horse Barns, Sheep Barns, Piggeries and Smoke-houses, Poultry Houses, Implement Sheds and Granaries, Silos and Root-Cellars, Farm Houses.

## ALBERTA.

**Agriculture.**—Annual Report of the Department of Agriculture. Reports: Commission on Agricultural Credit; Schools of Agriculture; Demonstration Farms and Schools of Agriculture. Bulletins of the Live Stock Branch: Live Stock and Mixed Farming in Alberta; (1) Suggestions re Wintering Brood Sows; (2) Why Sows Eat Their Pigs; (3) Housing of Swine; (4) Preparing for the Pig Crop (New Edition); Meat Curing on the Farm, Circular No. 1—Pork. Successful Poultry Raising, Bulletin No. 3; Farm Crops of Alberta. Bulletins of the Provincial Health Branch; Consumption; Dairies and Milk; Disinfection; Facts about Flies; Infectious Diseases; Infectivity of Tuberculosis; Notifiable Diseases; Objects of the Public Health Act. Health Bulletin, Vol. 1, 1916 (monthly). Handbook of Women's Institutes. Report of First Annual Convention. Bread. Women's Institute Bulletins: Recipes; A Little Talk about the Baby.

**Department of Education.**—Technical Education, Bulletins Nos. 1 and 2. Summer School for Teachers.

**Department of the Attorney General.**—Annual Report on Dependent and Delinquent Children.

Annual Reports are also issued by the Departments of Municipal Affairs; the Provincial Secretary; Public Works; Railways and Telephones; Treasury (Insurance Branch); and Public Accounts.

## BRITISH COLUMBIA.

**Department of Lands.**—Skeena Land Recording Division. South Fork of the Fraser River. Land and Forest Policies: Speeches by the Hon. W. R. Ross, K.C., Minister of Lands. Kitimat Valley. Fort Fraser Land Recording Division. Kamloops Land Recording Division, Lands for Pre-emption in Lower Mainland, Malcolm and Nootka Islands and Coast Islands. Cariboo Land Recording Division. Reports of the Survey, Forest and Water Branches. How to Pre-empt or Purchase Land. Series of Maps on varying scales at prices ranging from 10 cents to \$1 per copy, or from 50 cents to \$10 per dozen. Pre-emptors' series of maps free for single copies. Bulletins of the Forest Branch, Farm Building Series: (1) Combination or General Purpose Barns for Prairie Farms; (2) Dairy Barns, Milk and Ice Houses for Prairie Farms; (3) Beef Cattle Barns for Prairie Farms; (4) Horse Barns for Prairie Farms; (5) Sheep Barns for Prairie Farms; (6) Piggeries and Smoke Houses for Prairie Farms; (7) Poultry Houses for Prairie Farms; (8) Implement Sheds and Granaries for Prairie Farms; (9) Silos and Root Cellars for Prairie Farms; (10) Farm Houses for Prairie Farms. These Bulletins are for distribution in Western Canada only, and may be obtained free from the Chief Forester, Victoria, B.C. Timber Series: (12) How to Finish British Columbia Woods; (14) British Columbia Douglas Fir Dimension; (15) British Columbia Timber for Export; (16) British Columbia Western Larch; (17) British Columbia

## PROVINCIAL GOVERNMENT PUBLICATIONS.

Western Soft Pine; (18) British Columbia Red Cedar Shingles; (19) British Columbia Manufacturers of Forest Products; (20) Directory of Lumber Dealers stocking B.C. Woods, and Lumber Wholesalers handling B.C. Woods, in Eastern Canada. These Bulletins may be obtained free from the Chief Forester, or the nearest B.C. Lumber Commissioner.

**Department of Agriculture.**—Reports: Fifteenth Annual Report, Farmers' Institutes, 1913-14; Fourth Annual Report, Agricultural Fairs Association; Third Annual Report, B.C. Markets Commission (1914); B.C. Dairymen's Report (8th and 9th Annual); Second and Third International Egg-laying Contest, at Victoria, B.C.; Women's Institutes, Annual Report, 1914. Bulletins on Live Stock and Mixed Farming: (32) Control of Tuberculosis; (33) Fruit Growing Possibilities, Skeena River; (60) Hog Raising in B.C.; (61) Field Crop Competitions, 1914-15; (62) Boys' and Girls' Field Crop Competitions, 1914-15; (64) Angora and Milch Goats; (66) Silos and Silage; (67) Feeding and Management of Dairy Cattle; (69) Field Crop Competitions, 1915-16; (70) Boys' and Girls' Field Crop Competitions 1915-16; (71) Butter-making on the Farm; (72) Milk Testing and Dairy Records; (73) Field Crop and Seed Competitions, 1917; (74) Breeding and Selection of Commercial Poultry; (75) Boys' and Girls' Competitions, 1917. Poultry Bulletins: (26) Practical Poultry Raising (4th Edition); (29) Natural and Artificial Brooding and Incubating (3rd Edition); (49) Market Poultry (2nd Edition); (55) Care and Marketing of Eggs (2nd Edition); (63) Poultry-House Construction. Women's Institute Bulletins: (35) Place and Purpose of Family Life; (54) B.C. Women's Handbook (1913-14). Bulletin on Fruits and Vegetables: (33) Fruit-growing Possibilities, Skeena River (Reprint); (48) Exhibiting Fruits and Vegetables (2nd Edition); (58) Farm Storages for Fruits and Vegetables; (68) Diseases and Pests of Cultivated Plants in B.C. Miscellaneous Bulletins: (30) Guide to Bee-Keeping (2nd Edition); (42) Apiculture in B.C.; (44) Irrigation in B.C.; (59) Agricultural Statistics for the Year 1913, including Special Reports on Agricultural Conditions in the Province; (65) Agricultural Statistics of B.C., 1914. Circulars: (6) Gardening on a City Lot; (7, 9 and 11) Honey Production in B.C., 1913-14, 1915, 1916; (12) Seed-growers' Directory; (13) Instructions re Co-operative Variety Tests; (14) Community Breeding. Circular Bulletins: (1) Thousand-headed Kale (2nd Edition); (2) Tuberculosis in Poultry (2nd Edition); (3) Construction of Fresh-air Brooders (2nd Edition); (4) Management of Turkeys; (5) Clover Dodder; (6) Seed Improvement; (7) Keeping Poultry Free from Lice; (8) Corn; (10) Care of Milk and Cream; (11) Poultry-keeping on a City Lot (2nd Edition); (12) Management of Geese; (13) Root-seed Growing; (14) Use of Agricultural Lime; (15) Profitable Ducks; (16) Poison Weeds; (17) Control and Eradication of Lamb's Quarters; (18) Noxious Weeds, their Identification and Eradication; (19) Poultry Rations and their Practical Application. Horticultural Circulars: (2) Commercial Onion Culture; (3) Selection of Orchard Sites and Soils; (4) Insects Injurious to Orchards; (6) Spray Calendar; (7) Fungous Diseases of Orchard and Garden; (8) Packing Orchard Fruits; (9) Sprays and Spraying; (10) Commercial Potato Culture; (11) Progress and Prospects in Fruit and Vegetable Growing; (12) Orchard Inter-crops; (14) Practical Irrigation; (16) Culture of Small Fruits in the Coast Sections; (17) Planting Plans and Distances; (18) Report of the Markets Commissioner; (19) Propagation and Selection of Nursery Stock; (20) Orchard Cultivation and Cover Crops; (21) Pruning Fruit-trees; (22) Thinning Tree-fruits; (23) Fire-blight (*Bacillus amylovorus*, Burrill) (3rd Edition); (24) The Home Vegetable Garden for Interior Sections; (27) Methods of Fruit Picking and Handling; (28) Fertilizers for Fruits and Vegetables; (29) Varieties of Fruit recommended for Commercial Planting; (30) Potato Recipe Book. Miscellaneous: Rules and Regulations, Women's Institutes; List of Books and Magazines recommended for Women's Institutes; Rules and Regulations, Farmers' Institutes; Instructions to Secretaries, Farmers' Institutes; Agricultural Journal (monthly); Stock-breeders' Directory; List of Agricultural Books recommended for Farmers; Revised Rules and Regulations, Board of Horticulture; Women's Institute Quarterly, 1916; Kaslo Women's Institute Cook Book. Finance in Relation to Women's Citizenship, by A. C. FLUMERFELT. Poultry-breeders' Directory.

NOTE.—Applications for copies of the publications of the Department of Agriculture should be addressed to the Department at Victoria, B.C.

**Bureau of Provincial Information.**—Bulletins: (27) Climate of British Columbia. Strathcona Park Booklet.

## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

Other Publications: Journal of the Legislative Assembly; British Columbia Gazette. Annual Reports: Board of Health; Births, Marriages and Deaths; Mental Hospitals. Reports of the Ministers of Lands, Mines, Public Works, Auditor General, Superintendent of Insurance, Fisheries Commissioner, Provincial Game Warden, Chief Inspector of Machinery, Boys' Industrial School, Girls' Industrial School, Agricultural Department (8th and 9th Reports), Forest Branch (Lands Department), Survey Branch (Lands Department), Water Rights (Lands Department), Agent General for B.C.; Provincial Museum; Public Accounts; Public Schools; Botanical Office; Printing Office; Archives.

NOTE.—Departmental Reports are mailed to applicants by the King's Printer at 50 cents per copy. Copies of publications available for free distribution may be obtained on application to the Bureau of Provincial Information, Victoria, B.C.

## YUKON TERRITORY.

Ordinary Journals and Sessional Papers of the Territorial Council. The Sessional Papers contain Reports of the Territorial Officers, including those of the Superintendent of Works, Health Officer, Territorial Assayer, Chief License Inspector and Superintendent of Schools, Revenue and Expenditure.

## XII.—LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

## DOMINION LEGISLATION, 1916.

The sixth session of the twelfth Parliament of Canada was held at Ottawa from January 12 to May 18, 1916, in the sixth and seventh years of the reign of George V. During the session twenty-nine public general acts and ninety-four local and private acts were passed. The War Appropriation, the Customs Tariff Amendment and the Business Profits War Tax Acts were among the more important of the public general statutes.

**Finance.**—The War Appropriation Act, 1916 (chapter 28), authorized the expenditure of \$250,000,000 beyond the ordinary grants of Parliament for the defence and security of Canada, the conduct of military and naval operations, the promotion of trade and industry and the carrying out of measures necessitated by the war. By the Public Service Loan Act, 1916 (chapter 3), a loan not to exceed \$75,000,000 was authorized. The Customs Tariff Amendment Act (chapter 7) raises the import duties payable upon apples to sixty cents per barrel for the British preferential tariff and ninety cents for the intermediate and general tariffs. The duties previously in force were twenty-five cents, thirty-five cents and forty cents for these tariffs, respectively. The Act also reduces the duties payable upon fuel oil, including heavy distillates used in traction engines, to one-third of a cent per gallon for the British preferential tariff and to one-half cent per gallon for each of the other two tariffs. Both items are made exempt from the special customs rates specified in the Customs Tariff War Revenue Act, 1915, section 3.

The Business Profits War Tax Act (chapter 11) imposes a tax of twenty-five p.c. of the amount by which the profits earned in any business exceed, in the case of a business owned by an incorporated company, the rate of seven p.c. per annum, and in the case where it is owned by



## DOMINION LEGISLATION, 1916.

any other person or association, the rate of ten p.c. per annum upon the capital employed in the business. The Act applies to all trades and businesses carried on in Canada, with the following exceptions: (a) businesses, the capital employed in which has been throughout the accounting period less than \$50,000; (b) the business of life insurance companies; (c) any business of which not less than ninety p.c. of the stock or capital is owned by a province or municipality. However, businesses are not exempt which are engaged in manufacturing or dealing in munitions, materials or supplies of war, nor are businesses exempt of which twenty p.c. or more in value relate to war materials or supplies. The Act contains provisions for computation of profits, calculation of capital, collection of taxes and hearing of assessment appeals.

The Life Insurance Companies Investment Act (chapter 18) makes it obligatory upon Canadian life insurance companies licensed under the Life Insurance Act, 1910, to hold and own during the two years ending December 31, 1917, securities of Canada to the amount of not less than fifty p.c. of the increase in the net ledger assets of the company, the object being to provide a market for the securities of Canada issued in consequence of the war. After February 15, 1916, the deposits of securities required to be made by non-Canadian life insurance companies must consist of bonds, debentures or debenture stock of the Government of Canada.

**Railway Legislation.**—Chapter 2, an act to amend the Railway Act, gives the Railway Commissioners power to order the transfer of grain from one railway to another for transportation from the western provinces at through rates. Chapter 6, an act to amend the Canada Grain Act, gives the Grain Commissioners power to order the supply of cars when needed for the despatch of grain which is liable to become damp or injured. Chapter 17 amends the Government Railways Small Claims Act by extending its operation to claims on all railways under government control. The Act respecting rentals payable to the Mount Royal Tunnel and Terminal Company, Limited (chapter 20), is intended to explain the Company's Act of 1914 as to rentals payable by the Canadian Pacific Railway Co. Chapter 22 is an act to authorize the acquisition by the Government of lines of railway between the city of Quebec and Nairn Falls, and between Lyster and St. Jean des Chaillons. The St. John and Quebec Railway Act, 1916 (chapter 23), authorizes the making of an agreement between the Minister of Railways and the Government of New Brunswick and the St. John and Quebec Railway Co., relating to the construction of a railway and to the granting of a subsidy thereon.

**Acts Concerning the Judiciary.**—An Act to amend the Winding-up Act (chapter 5) gives to the Supreme Court of Ontario powers which were held by the High Court of Ontario. The Exchequer Court Amendment Act, 1916 (chapter 16), extends the jurisdiction of the Exchequer Court to enable it to determine questions of value where the existence of claim is not in dispute. Chapter 25, an Act relating to the Superior Courts of Saskatchewan and to amend the Judges Act, gives effect to the provincial Acts of 1915 constituting the courts of appeal and king's bench for Saskatchewan.



## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

**Temperance Acts.**—Chapter 19, an Act in aid of provincial legislation prohibiting or restricting the sale or use of intoxicating liquors, makes it an offence, punishable by fine or imprisonment, to send intoxicating liquors into any province to be dealt with contrary to the law of that province, or to sell liquor with the knowledge that it will be so sent. The provisions of this Act are extended by chapter 14, an Act to amend the Canada Temperance Act, to provinces in which the Canada Temperance Act is in force. Liquor is to be sold only in wholesale quantities in places which are under that Act.

**Shipping Acts.**—Chapters 12 and 13 are Acts to amend the Canada Shipping Act. The first of these enables captains who hold coasting certificates to navigate as far south as forty degrees south latitude, instead of only five degrees north latitude. The second makes provisions relating to the issue of certificates to persons who are qualified to take charge of boats with internal combustion engines; it also amends the clauses relating to Quebec pilotage. Chapter 9, an Act to amend the Vancouver Harbour Commissioners Act, removes the restrictions of the Canada Shipping Act from the commissioners' powers of imposing tolls, etc.

**Miscellaneous.**—Chapter 10 amends the Bank Acts by making permanent the authority to lend money to occupiers of land for the purchase of seed grain upon security of the crop grown, and also authorizes the banks to lend money to farmers and stock owners upon the security of their live stock. The Act provides that in provinces where statutes or ordinances are in force relating to bills of sale and chattel mortgages, the security may be taken in the form of a bill of sale or chattel mortgage, valid and lawful according to the laws in those provinces. In provinces where there are no such statutes or ordinances in force it is provided that the security may be taken in the form of a memorandum in the terms of a schedule to the Act, this memorandum to be published in the Official Gazette of the province within thirty days after its execution. The Zinc Bounties Act (chapter 27) provides for a bounty on zinc produced in Canada when the price in London, England, is less than £36 19s. 3d. per long ton. No bounty, however, is payable under the Act for zinc produced during the continuance of the war, nor for zinc produced after July 31, 1917.

Chapter 21 amends the Prisons and Reformatories Act (R.S., 1906, chapter 148) by making that Act applicable to the system of reformatories and industrial farms established by the Provincial Government of Ontario. Provision is made in the Act for the transfer of prisoners from the gaols to the industrial farms or for their transfer to gaol where necessary; the Act also gives wider powers to the parole board established in connection with reformatories by the Lieutenant-Governor of Ontario in respect of the termination or suspension of indeterminate sentences. Chapter 8 provides for extension of the time during which an insurance company may apply for a license under the Insurance Act, 1910, on payment of a fee of \$100. Chapter 15, an Act to amend the Dominion Forest Reserves and Parks Act, empowers the Minister of the Interior to cancel letters patent containing errors of name, etc., and to issue correct letters patent for lands in

## DOMINION LEGISLATION, 1916 AND 1917.

Dominion reserves. An Act to amend the White Phosphorus Matches Act (chapter 4) extends the time for the sale of white phosphorus matches to July 1, 1916, and for the use of them to January 1, 1917. Chapter 24, an Act relating to the St. Peter's Reserve, confirms certain patents and sales of land in that reserve, and the Taber Irrigation District Act (chapter 26) authorizes the use and sale of certain school and Dominion lands in that district.

The sixty-five local and private acts included two incorporating railway companies (chapters 30 and 31), twenty amending railway company acts (chapters 32-51), two insurance company and two trust company acts (chapters 52-55), eleven other company acts (chapters 56-66), four acts relating to patents (chapters 67-70) and 24 acts of divorce (chapters 71-94). The company acts include two (chapters 63 and 64), providing for the division of the governing body of the Salvation Army into two governing councils, one for Canada east and one for Canada west. Another of these Acts (chapter 62) provides for the amalgamation of the Kingston School of Mining and Agriculture with Queen's University.

By Act of the Imperial Parliament (6-7, Geo. V, chapter 19), passed June 1, 1916, on petition from both Houses of the Canadian Parliament, the duration of the twelfth Parliament of Canada was extended until October 7, 1917. It would otherwise have expired by effluxion of time on October 7, 1916.

## DOMINION LEGISLATION, 1917.

The seventh session of the twelfth Parliament of Canada was held at Ottawa from January 18 to September 20, 1917, in the seventh and eighth years of the reign of George V. At the opening of the session on January 18, 1917, Mr. Edgar N. Rhodes, M.P. for Cumberland, N.S., was elected Speaker of the House of Commons in succession to the Hon. Albert Sévigny, appointed Minister of Inland Revenue; and on February 1, 1917, Mr. J. H. Rainville, M.P. for Chambly-Verchères, P.Q., was elected Deputy Speaker. From February 7 to April 19, 1917, Parliament was adjourned to permit of the attendance at Imperial Conferences in England of the Prime Minister and of colleagues accompanying him. By the Military Voters' and War Time Elections Acts, described below, the parliamentary franchise is, for the first time in Canada, conferred upon women. The following were among the more important Acts passed during this session.

**War Taxation.**—The Income War Tax Act (chapter 28) imposes a tax of four p.c. on incomes exceeding \$2,000 in the case of unmarried men and widows and widowers without children, and exceeding \$3,000 in the case of other persons. There is further a supertax, progressing from two p.c. on the amount by which an income exceeds \$6,000, but does not exceed \$10,000, up to twenty-five p.c. on the amount by which an income exceeds \$100,000. In the case of companies the tax is four p.c. on incomes exceeding \$3,000. Certain exemptions and deductions are provided for. An Act to amend the Business Profits War Tax Act, 1916 (chapter 6), provides for a tax of fifty p.c. on profits in excess of

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fifteen p.c. per annum but not exceeding twenty p.c. per annum, and a tax of seventy-five p.c. on profits in excess of twenty p.c. per annum. The Public Service Loan Act, 1917 (chapter 3), authorizes a loan not exceeding \$100,000,000 in addition to sums remaining unborrowed of loans already authorized.

**Military Service.**—The Military Service Act, 1917 (chapter 19), makes every British subject between the ages of twenty and forty-five, who is, or has been since August 4, 1914, resident in Canada, liable to be called out on active service, excepting clergy and persons exempted by the Act. Men who are liable to be called out are divided into six classes: (1) those between twenty and thirty-four who are unmarried or widowers with no child; (2) those of the same age who are married or widowers with a child; (3) those between 35 and 40 who are unmarried or widowers with no child; (4) those of the same age who are married or widowers with a child; (5) those between forty and forty-five who are unmarried or widowers with no child; (6) those of the same age who are married or widowers with a child. A man who is liable to be called out may be exempted on the following grounds: that it is expedient he should continue his usual work, or be engaged in other non-military work, continue to be educated or trained; hardship arising from exceptional business obligations or domestic position; ill health or infirmity; conscientious objection on religious grounds. Claims of exemption are to be heard by local tribunals from which appeals may be made to provincial appeal tribunals and from these to a central appeal judge. Provisions are made in the Act for the appointment of these tribunals. Men are to be called out, by classes, by proclamation of the Governor-in-Council, and men so called out are to be deemed to be on leave of absence without pay until placed on active service. The Act authorizes the calling out of only one hundred thousand men. Penalties are imposed for contravention of the Act and for incitement to contravention of or resistance to the Act.

**Parliamentary Franchise.**—The Military Voters' Act, 1917 (chapter 34), is an Act to amend the Dominion Elections Act, and gives the right to vote to every person, male or female, who, being a British subject, whether or not ordinarily resident in Canada and whether or not an Indian, has gone on active service in the Canadian naval or military forces, or has, while within Canada, joined the British Royal Flying Corps, the Royal Naval Aviation Service, or the Auxiliary Motor Boat Patrol Service. The Act makes regulations for the manner of taking and counting the votes. The War Time Elections Act (chapter 39) replaces certain parts of the Dominion Elections Act during the present war and until complete demobilization after the conclusion of peace. The right to vote is given to every female who has the provincial qualification as required in the case of males and is the wife, widow, mother, sister or daughter of any person, male or female, who is serving or has served with the naval or military forces of Canada or Great Britain in the present war. Male voters are those having provincial qualifications who are neither conscientious objectors to combatant military service, nor persons, naturalized subsequent to March 31, 1902, who were born in enemy countries or whose mother tongue was a language of an



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enemy country: provided that a naturalized subject may vote if he, his son, grandson, father or brother is serving or has served in the war, or if he has applied for service and been found medically unfit, or if he is or has been a member of the Dominion or a provincial parliament or if he is a Syrian or Armenian Christian. Disqualified aliens are to be exempt from military service, and persons who have voted at a Dominion election after October 7, 1917, cannot claim such exemption.

**Other Acts.**—An Act respecting the Minister of the Overseas Military Forces, the Parliamentary Secretary of the Department of Militia and Defence and the Parliamentary Under Secretary of State for External Affairs (chapter 35), provides for the creation of these offices and is to remain in force during the continuance of the war. An Act providing for the acquisition by His Majesty of the capital stock of the Canadian Northern Railway Company (chapter 24) authorizes the Government to buy the six hundred thousand shares of the railway, which are not now held by the Minister of Finance, for a price to be determined by arbitration.

The twelfth Parliament of Canada was prorogued on September 20, 1917, and dissolved on October 6, 1917, having thus lasted for six years, or longer than any previous Parliament of the Dominion.

## PROVINCIAL LEGISLATION, 1916 and 1917.

**Provincial Acts Arising out of War Conditions.**—In New Brunswick provision is made by chapter 6 of 1916 for the granting of land to settlers who are unable to fulfil the homestead conditions on account of wounds received while serving in the war, or to the heirs of those who are killed. An Ontario Act, chapter 13 of 1917, empowers the Lieutenant-Governor to set apart lands for settlement by those who have enlisted for active service, the administration of the Act being combined with that of the Northern Ontario Development Act of 1912. Chapter 59 of the British Columbia statutes of 1916 provides that certain pending land purchases from the province shall be cancelled and that the land so resumed shall be held for pre-emption by returned soldiers; but by chapter 64 of 1917 this Act is repealed; the lands resumed are to be Crown Lands, for which any volunteer or reservist may make application, not losing his right to complete title by default in his payments, provided that he files a notice of his service overseas and of his intention to complete the title. Protection of men on active service against claims for debt is provided in Alberta by chapter 6 of 1916, which prohibits action against a volunteer or reservist, his wife or dependent, for enforcement of a mortgage or a debt, including rates and taxes. In Saskatchewan, chapter 7 of 1916 provides that proceedings under mortgages, bonds, etc., shall not be taken till six months after the conclusion of the war against volunteers and reservists of the British and allied forces. In British Columbia, chapter 24 of 1916 relieves sailors and soldiers from certain payments due under the Forest Act, during the war, and chapter 35 of 1916 provides that every person on active service, who has a pre-emption claim, and his heirs, shall be entitled to a free grant of the land under his claim until one year after the end of the war. In Ontario,



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chapter 3 of 1916 confirms and extends an Order-in-Council which establishes a Soldiers' Aid Commission to assist, and to find employment and arrange for technical instruction for returned soldiers of the Canadian, Imperial and allied forces. The Saskatchewan Returned Soldiers Commission is constituted by chapter 30 of 1917. For Alberta, chapter 18 of 1917 authorizes and regulates the organization of War Veterans' Associations.

Chapter 41 (1916) of the British Columbia statutes makes arrangements for voting in provincial elections by men on active service. In Saskatchewan, chapter 4 of 1917 provides that three members of the Legislature shall be elected by persons serving overseas, one by those in Great Britain and two by those in France and Belgium. In Alberta, under chapter 12 of 1917, two additional members of the Legislative Assembly are to be elected to represent the soldiers and nurses serving overseas, the Act to remain in force until the dissolution of the fourth legislature; further, under chapter 38 of 1917, certain members of the third legislature, who are on active service overseas, are to be declared elected at the election for the fourth legislature. The right to vote in Saskatchewan is given by chapter 5 of 1917 to every person over 21 years of age who has served as soldier, nurse, etc., in the war. The same right is given in Ontario under chapter 5 of 1917, which specifically gives the right of voting to Indians who have gone on active service.

Taxation to provide money for the Patriotic Fund and other similar purposes is to be levied as follows: New Brunswick (chapter 8 of 1916), the amount to be fixed by Order-in-Council, the assessment so made being confirmed by chapter 29 of 1917; Manitoba (chapter 3 of 1916), one and one-half mill on the dollar of the total assessments of all municipalities, which is increased to two mills by chapter 67 of 1917; Saskatchewan (chapter 6 of 1916), one mill on the dollar of all assessments, which is increased to one and one-half mill by chapter 2 of 1917; Alberta (chapter 17 of 1917), the amounts being unlimited by the Act. In Saskatchewan there is further, under chapter 2 of 1917, a special poll tax of \$2 on every male over the age of 21, who is not otherwise assessed and is not in the naval or military forces on active service nor in the Royal Northwest Mounted Police. The Ontario Act of 1915 (chapter 37) is amended by chapter 41 of 1917, and extended to allow municipalities to make expenditures for armaments, etc. In Quebec a provincial subscription of one million dollars to the Canadian Patriotic Fund is authorized by chapter 2 of 1916. The Ontario Organization of Resources Act (chapter 4 of 1916) establishes a committee to assist in securing the organization of resources in the prosecution of the war and the maintenance of agricultural and industrial production.

**Acts Relating to Elections and the Suffrage.**—The right of voting in provincial and municipal elections on the same conditions as men is given to women in Ontario by chapters 5, 6 and 43 of 1917, in Manitoba by chapters 36 of 1916 and 57 of 1917, in Saskatchewan by chapter 5 of 1917, in Alberta by chapter 5 of 1916 and in British Columbia by chapters 76 of 1916 and 16 of 1917. Manitoba, under chapter 38 of 1916, is to be divided into forty-five instead of forty-two electoral divisions. Chapter 28 of 1917 forbids the making of contributions or dona-

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tions by candidates and the conveyance of voters in vehicles to the polls, and provides that a candidate's expenses shall not exceed \$750 in Winnipeg nor \$500 elsewhere, and that the total electoral expense of the central committee of any political party shall not exceed \$25,000. Saskatchewan, under chapter 4 of 1916, is to be divided into 59 instead of 54 electoral divisions. Chapter 73 of the British Columbia statutes of 1917 authorizes any municipality to adopt "proportional representation" in municipal elections if it is so decided by a plebiscite, which is to be taken on the petition of five p.c. of the electors.

**Temperance and Prohibition Acts.**—Most of the provinces have passed strict temperance legislation during the last two sessions, and practical prohibition of the sale of alcoholic liquors, excepting for medical and scientific purposes, is now in force in all provinces except Quebec. The New Brunswick (chapter 20 of 1916), Ontario (chapter 50 of 1916) and Manitoba (chapter 112 of 1916) Acts, which are very similar, take the form of licensing Acts, but are "intended to prohibit and shall prohibit transactions in liquor." Intoxicating liquors may be sold for export only, and may be consumed only in private dwelling houses. The Alberta (chapters 4 of 1916 and 22 of 1917) and British Columbia (chapter 49 of 1916) Acts provide that vendors may be licensed to sell liquors for medical, scientific, etc., purposes, but that no other liquor shall be kept for sale, nor kept elsewhere than in a private dwelling house, excepting for export. A British Columbia Act (chapter 83 of 1917) orders that the Prohibition Act shall come into force on October 1, 1917. In Saskatchewan chapter 23 of 1917 repeals the Liquor License Act of 1915 and confines the sale of intoxicating liquors to physicians and druggists, to whom permits may be issued. Under chapter 24 brewers or distillers licensed by the Dominion Government, but no one else, may keep liquors for export. The Prince Edward Island Acts (chapters 5 and 6 of 1917) make provisions for the better enforcement of the existing prohibition law. In Quebec, under chapter 17 of 1916, the number of licenses to be allowed in each city in the province is to be reduced, hotel bars are to be prohibited after May 1, 1918, treating is prohibited, increased duties are to be paid on licenses and limitations are put on the quantities of liquor which may be kept and sold by druggists.

**Agricultural Credit.**—In Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, Acts were passed in 1917 empowering the provincial governments to provide money for loans to farmers. The Ontario Act (chapter 25 of 1917) authorizes the Provincial Treasurer to lend money to a township corporation against debentures of the township, to enable the corporation to make loans to farmers, principally for permanent improvements. In Manitoba, a Farm Loans Association directed by a board of five members is created by the Act (chapter 33 of 1917) with a capital of one million dollars in shares which can be held only by the Provincial Government and borrowers under the Act. The board may lend money on mortgage to the amount of not more than fifty p.c. of the value of the land mortgaged. The Saskatchewan Farm Loans Board, created by chapter 25 of 1917, is to consist of a commissioner and two other members, and may make loans for thirty years of not more than fifty p.c. of the property mortgaged, the interest to be fixed by

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the board. The Alberta Act (chapter 10 of 1917) provides for the making of loans on mortgage by a board established for the purpose, money being advanced to the board by the Provincial Treasurer. In British Columbia, under chapter 10 of 1917, a Land Settlement Board is to be formed to replace the former Agricultural Credit Commission and to have powers, among others, to make loans on mortgage for the acquiring and development of land and for the purchase of live stock, machinery, etc. Smaller credits are dealt with in Manitoba by chapter 73 of 1917 and in Alberta by chapter 11 of 1917, which make provisions for the formation of local co-operative credit societies among farmers. A Manitoba Act (chapter 80 of 1917) permits municipalities to borrow limited amounts of money for the purchase of seed grain; chapter 8 of 1917 in Alberta regulates the making of loans for seed grain purposes and authorizes the Provincial Treasurer to guarantee payments for seed grain to bankers and others making such loans. For the encouragement of live stock in Manitoba chapter 3 of 1916 authorizes the Government to buy and to raise animals and to sell them conditionally to settlers, reserving the right to inspect such animals and to resume possession thereof in certain cases; milk and cream not used by the owners of the animals are to be sent to a Government co-operative dairy. The Live Stock Commissioner of Alberta is empowered by chapter 9 of 1917 to make loans for the purchase of animals. In Nova Scotia, by chapters 11 and 12 of 1917, the Government is empowered to appropriate money to assist and encourage the purchase of agricultural machinery.

**Other Agricultural Legislation.**—Chapter 6 (1917) of Nova Scotia is an Act for the prevention and treatment of diseases among bees. Of the Manitoba statutes of 1917, chapter 24 authorizes the establishment and operation of demonstration farms under the direction of the Provincial Minister of Agriculture; chapter 44 prohibits the killing or taking of certain insectivorous birds and the taking of their eggs, and chapter 65 deals with the suppression of noxious weeds. The protection of sheep from injury by dogs is dealt with by chapter 82 (1917) in Manitoba, and chapter 14 (1917) in British Columbia. Chapter 16 of the statutes of British Columbia for 1916 requires the licensing of creameries, dairies, etc., and their inspection by licensed inspectors. Chapter 18 (1916) orders, under penalty, the marking of eggs according to grades. Chapter 15 of 1917 provides that brands and sale-marks of cattle and horses shall be registered and certificates of registration issued, a board of commissioners being appointed to administer the Act.

**Forestry Legislation, 1917.**—In Ontario the Forest Fires Prevention Act (chapter 54) provides for the appointment of a provincial forester in charge of its enforcement. The portion of the province lying north of a line running approximately from the southern end of Georgian bay to the upper Allumette lake in the Ottawa river is included in so-called fire districts. In these districts special fire regulations apply during a close season from April 15 to September 30, which may be extended by regulation. The main requirement of these regulations is the taking out of a permit before setting-out fire for clearing land, destroying debris, or any industrial purpose. By subsequent regulation, this requirement is confined to a district including mainly the Clay Belt



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and Cobalt regions. The provincial forester is empowered to order the clearing up of areas in which he thinks fires liable to start. Regulations are made in the Act as to the operation of engines (both locomotive and stationary) in the "close season."

In Manitoba the Fires Prevention Act (chapter 35) was passed. By this Act a "wooded district" is set aside, and power is given the Lieutenant Governor in Council to proclaim other such districts. In such districts a "close season" (April 1 to November 15) is provided; during this season no fires may be lighted without a permit from the nearest fire guardian. Every adult male within fifteen miles of a fire may be called upon to help fight it, under penalty for refusal. Burning brush or felled trees at a time where there is danger of the fire spreading is forbidden, under penalty of fine or imprisonment. A minimum fine of twenty dollars is fixed. Organized municipalities are required to appoint fire guardians, and additional fire guardians may be appointed by the Minister or Dominion forest or fire rangers authorized to act, especially in unorganized territory.

In Saskatchewan the Prairie and Forest Fires Act of 1917 (chapter 21) enacts that brush caused by clearing land for any purpose must be piled and burned at the time of cutting, unless there is danger of the fire spreading; in such cases the burning must be postponed until the end of the "close season." Anyone setting fire to trees or timber under circumstances that make a spread of the fire likely is liable to fine or imprisonment. In certain specified areas a "close season" for fires (April 1 to November 15) is instituted, during which no one may burn standing trees, brush or slashing without a permit from a fire guardian.

Appointment by the Lieutenant Governor in Council of fire guardians in the district where burning permits are required is provided for. In organized municipalities, fire guardians are to be appointed by the Councils. All fires are to be reported to the Provincial Fire Commissioner (provided for by previous legislation) and he is to investigate fires of doubtful origin and prosecute apparent offenders. A minimum penalty of twenty-five dollars is prescribed.

In New Brunswick, chapter VII, an Act to facilitate the collection of stumpage makes more stringent regulations regarding the submission of returns on the part of operators of timber limits and exporters of pulpwood.

**Labour Legislation.**—Chapter 33 of the New Brunswick statutes of 1917 orders the early closing of shops engaged in any business in a city or town on petition from three-quarters of the persons engaged in that business, and chapter 35 confirms and enlarges the powers of a commission appointed to inquire into the workmen's compensation legislation of other provinces and countries. The Manitoba Workmen's Compensation Act (chapter 125 of 1916) requires the employer to compensate a workman for injury by accident arising out of and in the course of the employment, and workmen may not agree to forego the benefits of the Act. A compensation fund is to be established from contributions by employers who carry their own liability and from insurance companies, and a commissioner is to be appointed, with jurisdiction over the matters in the Act, who is to pay the compensation and recover the amount from



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the person or company that is liable. A schedule is given of industries to which the Act applies, and it is provided that in other industries the workman shall be compensated for injuries due to defects of equipment, etc., and to the negligence of other employees. The British Columbia Act (chapter 77 of 1916) provides that compensation is to be paid from a fund to be raised by assessment of industries, which are divided into classes for the purpose. Wages at mines must be paid at intervals of not more than two weeks in Ontario under chapter 12 of 1916, and in British Columbia, under chapter 75 of 1917, wages must be paid at least semi-monthly to employees in manufacturing industries, mining, lumbering and fishing.

In Ontario a Trades and Labour branch of the Government service is formed by chapter 13 of 1916 to deal with labour statistics, the distribution of employment, employment bureaux, conditions of labour, wages, etc. Chapter 121 (1916) of Manitoba creates a Fair Wages Board which is to act on information of the Bureau of Labour, investigate the wages of men employed on public works and report to the Minister of Public Works. Chapter 68 (1917) of British Columbia establishes a Department of Labour, under a Minister, to administer laws affecting labour, control the distribution and conditions of labour, collect statistics and information, establish employment bureaux, etc. The Alberta Factory Act (chapter 20 of 1917) makes provisions regarding the inspection of factories, conditions of labour, sanitary regulations, employment of women and children, etc. In Alberta, chapter 7 of 1917 makes regulations for the safety of workers in electrical industries; and in British Columbia, chapter 75 of 1916 requires the closing of shops, with certain exceptions, on one afternoon in every week.

**Laws Concerning Children.**—In Nova Scotia, chapter 2 of 1917 establishes a special court for juvenile delinquents, constitutes the office of Superintendent of Neglected and Delinquent Children, provides for the formation of Children's Aid Societies, and regulates the hours of employment of young persons. Chapter 54 of 1916 in Ontario orders the establishment of a Juvenile Court wherever the Juvenile Delinquents Act is in force, and chapter 62 of 1916 deals with the attendance at school of adolescents. Under chapter 97 of 1916 in Manitoba every child between the ages of seven and fourteen is to attend school, with certain exemptions, and no child under fourteen is to be employed in school hours, unless, if over ten, exempted by a magistrate for agricultural or household work during not more than six weeks in any school term. In Saskatchewan, under chapter 19 of 1917, no child under fourteen is to be employed during the school session unless excused by certificate of the trustees. A British Columbia Act (chapter 18 of 1917) makes provisions as to the appointment, rights and duties of guardians of infants and gives husbands and wives equal rights in the guardianship of their children.

**New Government Departments.**—In addition to the new Departments mentioned under Labour Legislation, a Bureau of Municipal Affairs is created for Ontario by chapter 14 of 1917 to superintend the accounts, liabilities, revenues, etc., of public utilities and municipalities. Chapter 72 (1916) of Manitoba authorizes the appoint-

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ment of an administrator of a municipality that is "in financial difficulties." Chapter 78 (1916) authorizes the appointment of a Commissioner of Northern Manitoba to supervise the enforcement of law and the administration of justice. Chapter 116 (1916) establishes a Controlling and Audit Branch of the Provincial Treasury under a Comptroller General. Chapter 6 of the Saskatchewan statutes of 1917 deals with the organization of the Treasury Department. Chapter 7 creates a Department of Highways under a Minister, and chapter 8 creates a Local Government Board of three members to supervise loans and, in certain cases, assessments of local authorities and the expenditure of borrowed money. A provincial police force for Alberta, controlled by a board of three commissioners, is established by chapter 4 of 1917. In British Columbia a Civil Service Commission is constituted by chapter 12 of 1917. The civil service is divided into classes, and appointments, with certain exceptions, are to be made by competitive examination. Provisions are made as to temporary employment, salaries, retirement, etc. A Controlling and Audit Branch of the Treasury Department is established by chapter 67 of 1917, and by chapter 73 a Board of Taxation to investigate and study systems of taxation and taxation laws.

**Municipal Trading.**—Under chapter 9 of 1917, in Nova Scotia, a municipality may establish a yard for the storage and sale of fuel; under chapter 32 of 1917, in New Brunswick, a municipality may borrow money for the purchase of food and other necessities; and in Ontario, by chapter 42 of 1917, powers are given to municipalities to deal in fuel and food.

**Ship-Building.**—A Ship-building Commission is constituted in Nova Scotia, by chapter 1 of 1917, to encourage the development of the ship-building industry in the province, and with power to construct, own and operate ships. A Commission with similar functions is constituted in British Columbia by chapter 57 of 1916, and provision is made for the payment of subsidies to owners of ships to be built in the province.

**Miscellaneous.**—The improvement and maintenance of roads is provided for in Nova Scotia by chapter 3 of 1917, in New Brunswick by chapters 2, 3 and 4 of 1917, in Quebec by chapter 10 of 1916, in Ontario by chapter 16 of 1917, in Saskatchewan by chapters 8 of 1916 and 7 of 1917 and in British Columbia by chapter 6 of 1916. General Fire Prevention Acts were passed in 1916 by Saskatchewan (chapter 17) and by Alberta (chapter 23).

Other Acts of the provincial legislatures are as follows:—

**Nova Scotia.**—Chapter 5 of 1916 provides that not less than fifteen persons actually engaged in fishing may form a co-operative society to carry on the trade of fishing, deal in fish, build and deal in boats, etc., and in so doing are relieved from compliance with certain parts of the Companies' Acts.

**Ontario.**—Chapter 20 of 1916 authorizes developments by the Hydro-Electric Power Commission, and chapter 21 establishes inspectors to secure the economical use of water powers. Chapter 58 of 1917 institutes and regulates a system of superannuation for the school

## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917

teachers and inspectors of the province. Chapter 63 of 1917 creates a Board of Parole with powers to release prisoners on parole and assist them in securing employment.

**Manitoba.**—Chapter 57 of 1916 authorizes the establishment of an Industrial Farm to which any person convicted of an offence against an Act of Manitoba may be transferred from any jail. Chapter 23 of 1916 makes provisions under which seven or more persons may form a co-operative association, with limited liability on the shares, to carry on business for cash only. Dividends are not to exceed seven p.c., and remaining profits are to be divided among patrons who are shareholders. Under the Initiative and Referendum Act (chapter 59 of 1916) a law may be proposed in a petition submitted by electors numbering not less than eight p.c. of the total votes polled at the preceding provincial general election, and such proposal, if not enacted by the Legislative Assembly, is to be submitted to the people either by a special referendum or at the next general election, unless it is decided by the courts to be *ultra vires* of the Legislature. If a special referendum is asked for it is to be taken not more than six months after the presentation of the petition. On the petition of electors, being not fewer than five p.c. of the votes polled at the preceding general election, any Act of the Legislative Assembly is to be submitted to the people by referendum or at a general election, and no Act of the Assembly is to take effect until three months after the termination of the session unless it is declared to be an emergency measure by a two-thirds vote of the members voting. No grant or subsidy is to be declared an emergency measure.

**Alberta.**—The Sale of Shares Act, chapter 8 of 1916, regulates the sale in Alberta of shares, bonds and other securities of companies, and provides that securities not in certain specified categories may only be sold in the province under certificate and license of the Board of Public Utilities Commissioners.

**British Columbia.**—Chapter 43 of 1916 authorizes the Minister of Mines to construct tracks, bridges, etc., to mineral districts. Chapter 11 of 1917 provides for a mineral survey of the province, the appointment of a resident engineer in each of six survey districts for aid to prospectors and others by supply of information, examination of samples, etc., and for the protection of wage earners employed on mines or claims. It also provides for the protection of investors by the notification of false statements about any mineral property. Chapter 54 of 1917 empowers the Minister of Mines to construct and operate such sampling plants, smelters, refineries and the like as may appear necessary.

## PRINCIPAL EVENTS OF THE YEARS 1916 and 1917.

**H.R.H. The Governor General.**—On October 13, 1916, the Duke of Connaught completed five years' service as Governor General and Commander in Chief of the Dominion of Canada. Originally appointed for a period of two years, His Royal Highness eventually fulfilled the entire term of five years during which it is customary for the Governors-General of Canada to hold office. Throughout this time the Duke mingled freely with the people of Canada, winning their sincere esteem



## CANADA AND THE EUROPEAN WAR.

and loyal affection. The Royal party left Canada on October 16th, 1916. The death in England on March 14, 1917, of the Duchess of Connaught was deeply and universally regretted in Canada, where Her Royal Highness had devoted herself unsparingly to efforts in alleviation of the suffering and distress occasioned by the war.

**Appointment of New Governor General of Canada.**—The Duke of Devonshire, K.G., G.C.M.G., G.C.V.O., appointed on August 19, 1916, to succeed H.R.H. the Duke of Connaught, landed at Halifax, N.S., on November 11, 1916, where he was immediately sworn in as Governor General and Commander in Chief of Canada. His Excellency, accompanied by Her Excellency the Duchess of Devonshire and other members of their family, then proceeded to take up residence at the Government House, Ottawa.

**Canada and the European War.**—The great war has continued to engage the chief national energies of Canada. On January 12, 1916, an Order in Council gave legal authority for an increase of the Canadian troops to 500,000 men, and earnest efforts to recruit, train and equip additional soldiers have been put forth throughout the whole of Canada. Regulations respecting national service were promulgated under the provisions of the War Measures Act, 1914, by Orders in Council of October 5, November 14 and 30, 1916. These provided for the appointment of a National Service Board for Canada with local National Service Boards and a Committee for the Public Service of Canada under a Director General of National Service. The object of the regulations was to secure the largest available military forces in the present war and to co-operate with and afford all possible information to the military authorities engaged in recruiting. An inventory of the man-power of Canada was taken by the Director General of National Service by means of cards issued to and collected from all males of military age throughout the Dominion. On November 15, 1917, the total number of recruits enlisted in the Canadian Expeditionary Force since the beginning of the war reached 441,862 (see also page 639).

During the two years 1916 and 1917 the Canadian troops have splendidly maintained their high reputation for valour and endurance on the field of battle. On May 9, 1916, Lieut.-Gen. the Hon. Sir Julian Byng was appointed to succeed General Alderson in command of the Canadian troops at the front, and on June 19, 1917, on his promotion to command the Third Army, he was succeeded in this command by Major-Gen. Sir Arthur Currie, K.C.M.G., C.B. After the second battle of Ypres in 1915 (see Canada Year Book, 1915, page 685), the Canadian troops were occupied for some months chiefly with minor operations and raids; but they also took part in the severe fighting at St. Eloi in April, 1916, at Sanctuary Wood in June, 1916, and on the Somme in September, 1916. The year 1917 was one of special distinction for the Canadian Army Corps, which then consisted of four divisions and a considerable number of corps troops. The corps bore a brilliant part in the victory of Vimy in April, and distinguished itself in the subsequent fighting at the end of April and the beginning of May at Arleux-en-Gohelle and Fresnoy. Shifting northwards towards Lens, during June and July they did much fighting in the



## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

western suburbs of that city; on August 15 they attacked and captured Hill 70, near Loos, and for some days were engaged in heavy fighting which took them close to Lens on the west and northwest. September and part of October were passed in comparative quiet, but towards the end of the latter month the corps was moved once more to the Ypres battlefield, and four attacks made in the last days of October and early in November resulted in the capture of Passchendaele and the highly important ground on which that village stands. In addition to the combatant troops, valuable services were rendered by the Canadian Forestry and Railway Corps. Canadians have also specially distinguished themselves as aviators. There were numerous awards of the Victoria Cross, the Distinguished Service Order, the Military Cross, the Distinguished Conduct Medal, and other recognitions of valour and skill; the names of the recipients of these honours have been published in the Canada Gazette. Up to October 17, 1917, the casualties amongst the Canadian forces totalled 5,125 officers and 120,431 of other ranks; they included 1,015 officers and 20,263 other ranks killed in action; 314 officers, 6,867 other ranks died of wounds; 81 officers, 1,473 other ranks died of diseases; 3,458 officers, 84,955 other ranks wounded; 120 officers, 2,566 other ranks prisoners of war; 96 officers, 3,248 other ranks presumed to have died; 41 officers, 1,059 other ranks reported missing.

An Order in Council of June 3, 1916, provided for the establishment of a Board of Pension Commissioners for Canada consisting of three members, and by Order in Council of October 22, 1917, a revised scale of pensions was authorized to take effect as from April 1, 1917 (see page 644).

On October 29, 1917, resolutions expressing the thanks of both Houses of the Imperial Parliament were voted unanimously to the naval and military forces of the Empire, and the following clauses which have special reference to the troops of the Overseas Dominions may be recorded here as applicable to Canada:

"That the thanks of this House be accorded to the gallant troops from the Dominions Overseas, from India and from the Crown Colonies, who have travelled many thousands of miles to share with their comrades from the British Isles in the sacrifices and triumphs of the battlefield, and to take their full part in the struggle for human freedom.

"That this House doth acknowledge with grateful admiration the valour and devotion of those who have offered their lives in the service of their country, and tenders its sympathy to their relatives and friends in the sorrows they have sustained."

The resolutions were supported by eloquent speeches in both Houses, including those of the movers and seconders, viz., Earl Curzon and the Marquis of Crewe in the House of Lords and Mr. David Lloyd George and Mr. Herbert Asquith in the House of Commons.

**Canadian Contributions for Patriotic Purposes.**—At home the efforts of the Canadian people on behalf of the cause for which their troops are fighting at the front have been worthily sustained. Returns collected by the Census and Statistics Office show that up to March

## CANADIAN PATRIOTIC CONTRIBUTIONS.

31, 1917, the total value of Canadian patriotic contributions actually paid amounted to \$49,271,012 as follows:

Fund.	Value of contributions paid.
	\$
Canadian Patriotic.....	22,981,616 <sup>1</sup>
Donations of Dominion and Provincial Governments to the Imperial Government.....	5,469,320 <sup>2</sup>
Manitoba Patriotic Fund.....	2,311,292
Canadian Red Cross.....	4,926,139 <sup>3</sup>
British Red Cross.....	3,712,303
Hospitals and Military Hospitals Commission.....	2,048,109 <sup>4</sup>
Belgian Relief.....	2,633,458 <sup>5</sup>
Serbian Relief.....	95,397
Polish (Jewish) Relief.....	205,400
French Relief.....	393,160
British Sailors Relief.....	655,330
Contributions for machine guns, etc., and to military units.....	1,984,740
Miscellaneous.....	386,193
Salaries to dependents of men on active service by the Provincial Governments of Ontario and Manitoba.....	263,151
Expenditures by Ontario Municipalities not otherwise accounted for.	1,205,344
<b>Total.....</b>	<b>\$49,271,012</b>

<sup>1</sup>Includes \$75,973 taken over from the Canadian Patriotic Fund Association, \$114,947 contributed by the Public Service of Canada, \$2,241 collected in the United Kingdom, \$12,884 collected in the United States and interest \$135,254.

<sup>2</sup>Includes \$2,800,000 value of flour contributed by the Dominion Government.

<sup>3</sup>Includes contributions of \$67,379 from the United States, India and Cuba. <sup>4</sup>Includes \$5,000 from the Dominion Government and \$2,250 received from the United States. <sup>5</sup>Includes \$50,000 from the Dominion Government and \$788,150 from the Maritime Provinces.

The various funds included in the foregoing statement are as follows: Canadian Patriotic; Manitoba Patriotic; Donations of Dominion and Provincial Governments; Canadian Red Cross; British Red Cross; Contributions for machine fund, field kitchens, field ambulances, etc., general military expenses and military units; Belgian Relief; Jewish Relief; Serbian Relief; Polish (Jewish) Relief; French Relief; Comité France-Amérique; Soldiers' Comforts; British Sailors' Relief; Canadian War Contingent Association; Field Comforts Commission; Committee of New Brunswick; Aeroplane Fund of Winnipeg; Soldiers' Gazette; Miscellaneous; Returned Soldiers; Newspaper Tobacco Funds; European War Veterans' Association of Calgary; Manitoba Telephone Employees; Ontario Municipalities and the following Hospital Funds: Military Hospitals Commission; Ontario Military (Orpington and Cobourg); Women's Hospital Ship; Seamen's Hospital (Greenwich); Scottish Women's Hospitals; Toronto University; Queen's University; Luton House; Clarence House; Cliveden; Sir Sandford Fleming Home; Hôpital des Paroisses Canadiennes Françaises, Paris; Canadian Hospital, Dinard.

## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

The distribution of the contributions paid by provinces is as follows:

Province.	Amount.
	\$
Prince Edward Island.....	253,874
Nova Scotia.....	1,350,372
New Brunswick.....	1,037,427
Quebec.....	8,350,003
Ontario.....	23,596,329
Manitoba.....	3,439,674
Saskatchewan.....	2,110,702
Alberta.....	1,930,171
British Columbia.....	2,264,749
Yukon.....	44,714
Sources not specified.....	888,893
Not distributed by provinces.....	4 004,077 <sup>1</sup>
<b>Total.....</b>	<b>\$49,271,012</b>

<sup>1</sup>Includes \$758,150 contributed by the three Maritime provinces to the Belgian Relief Fund.

Not included in the total are sums pledged to the Canadian Patriotic Fund, but not collected by March 31, 1917. These aggregated \$14,973,037, and if added to the amount collected as shown in the above tables would increase the total to \$64,244,049. Moreover, the returns obtained are limited to organized contributions to Canadian, Imperial and Allied Funds. They do not include numerous local contributions and gifts in kind that have necessarily escaped compilation. From the available data it is estimated that the total Canadian contributions for patriotic purposes connected with the war from August 4, 1914, until March 31, 1917, has not been less than \$55,000,000, and that on August 4, 1917, at the end of the third year of the war, the total was between \$60,000,000 and \$70,000,000.

**Military Hospitals Commission.**—The Military Hospitals Commission was established by Order in Council of June 30, 1915, to provide hospital accommodation and convalescent homes in Canada for officers and men of the Canadian Expeditionary Force who return invalided from the front. By later Orders in Council it has received wider powers, including the securing of employment for returned soldiers. The following matters are now dealt with by the Commission: hospitals for sick and wounded, convalescent homes, sanatoria for the tuberculous,

## MILITARY HOSPITALS COMMISSION.

care of the insane, treatment of men suffering from shell shock, manufacture of artificial limbs, re-education or vocational education of men who pass through the hospitals, finding of employment for discharged men. All men passing through the Commission's institutions are required to take some educational course unless excused on medical grounds. Men whose disability, caused or aggravated by service, prevents them from resuming their former trade may claim free training for a new occupation. About 1,500 such applications have been approved up to the end of November, 1917. Such men receive pay and allowances in accordance with a special scale. If a soldier, who has been discharged, subsequently requires treatment for a disability due to his service, he may be re-attested and receive the pay and allowances of his rank during the treatment. In finding employment for discharged men the Commission is assisted by a commission or committee in each province. The number of men receiving care and treatment under the Commission was 10,953 on November 15, 1917. Returned soldiers have been divided into three classes, viz., (1) men for immediate discharge without pension; (2) men whose condition may be benefited by further medical treatment or rest in a convalescent home, hospital or sanatorium; and (3) men having a permanent disability which would not be benefited by further medical treatment, and whose cases are considered by the Pensions Board with a view to pension. Up to March 31, 1917, the number of men returned was 13,826, of whom 2,891 were of class 1, 9,125 were of class 2, 828 were of class 3, 864 were men not classed as invalids, and of 119 there was no record. The total had increased by October 31, 1917, to 29,092, of whom 18,099 were invalids coming under the care of the Commission. In May, 1917, the various institutions available or under construction throughout Canada numbered 110, providing accommodation for 14,949 cases. At the end of September, 1917, there were 113 institutions in use, of which 71 were operated by the Commission, 21 were new centres provided, and 45 were remodelled during the year 1917. A Disablement Fund has been started by the Commission, contributions to which have been received amounting to \$125,550. The principal of the amounts contributed has been invested, and it is proposed to apply the fund for the relief of men and their families who, without having any claim on the Government, may be in financial difficulties.

**Military Organization.**—On November 11, 1916, General Sir Sam Hughes, who had been Minister of Militia and Defence since October, 1911, tendered his resignation of this office at the request of the Prime Minister, conveyed by letter of November 9, 1916, in consequence of disagreement on matters connected with the overseas administration of the Department. The questions in dispute were referred to in a series of letters exchanged between the Prime Minister and Sir Sam Hughes from October 18, 1916, to November 11, 1916, and published on November 15, 1916. In one of these letters, dated October 18, 1916, Sir Robert Borden wrote: "I thoroughly appreciate the great ability, the wonderful energy and the unequalled resourcefulness which you have placed at the service of the country ever since the outbreak of



## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

the war." General Hughes' resignation was accepted, and on November 23, 1916, the Hon. A. E. Kemp was appointed to succeed him as Minister of Militia and Defence. On October 28, 1916, Sir George Perley, Acting High Commissioner in London, was appointed by Order in Council as Minister of the Overseas Military Forces for Canada in the United Kingdom.

**Visits to Canada of Australian, French and British Statesmen.**—On February 18, 1916, the Hon. William Morris Hughes, Premier of the Commonwealth of Australia, when passing through Canada on his way to England, was sworn in at Ottawa as a member of the Canadian Privy Council; and he was also present, by invitation, at a meeting of the Dominion Cabinet. On April 6, 1917, war against Germany was declared by the United States whose entrance into the great conflict was warmly welcomed in Canada, as in the rest of the Empire, not only because the vast resources of the new Ally rendered still more certain a victorious issue, but also because of the moral weight which the American Republic, after a display of forbearance unexampled in the history of nations, thus threw into the scale on behalf of democratic freedom. In May, as a consequence of the action thus taken, important missions from France under M. René Viviani, French Minister of Justice, and Marshal Joffre, formerly Commander-in-Chief of the French Armies in the field, and from Great Britain under the Right Hon. A. J. Balfour, M.P., Secretary of State for Foreign Affairs, visited the United States and Canada. On May 12, 1917, M. Viviani, who was accompanied by the Marquis de Chambrun, Vice-President of the French Committee for Foreign Affairs, and General Vignal, Military Attaché of the French Embassy at Washington, were received at Ottawa by both Houses of Parliament in joint session. M. Viviani on this occasion delivered a deeply impressive oration, which on the motion of the Acting Prime Minister (Sir George Foster), seconded by the Leader of the Opposition (Sir Wilfrid Laurier) was ordered to be inserted in Hansard as part of the permanent record of Parliament. On May 28, 1917, Mr. Balfour was likewise tendered a reception by both Houses of Parliament, when he delivered a notable speech, which on the motion of the Prime Minister (Sir Robert Borden), seconded by the Leader of the Opposition (Sir Wilfrid Laurier), was ordered to be published in the Official Debates of the House of Commons.

**Visits to England of Canadian Cabinet Ministers.**—On February 12, 1917, the Prime Minister (Sir Robert Borden), accompanied by two of his colleagues in the Cabinet (the Hon. Robert Rogers, Minister of Public Works and the Hon. J. D. Hazen, Minister of Marine and Fisheries and of the Naval Service) left for England to attend meetings of Imperial representatives in London for the consideration of matters connected with the prosecution of the war, the terms of peace and the problems that will arise after the conclusion of peace. An Imperial War Cabinet, consisting of members of the British War Cabinet, the Secretary of State for Foreign Affairs, the Secretary of State for the Colonies, and the Secretary of State for India, as well as the Prime Ministers of all the self-governing Dominions of the British Empire (with the exception of Australia, whose representatives were unable

## COMPULSORY MILITARY SERVICE.

to be present), and India being represented by the Secretary of State, met in London on March 20, 1917, and held fourteen sittings lasting until May 2, 1917. During fifteen days of the period March 21 to April 27, 1917, meetings were held of the Imperial War Conference of which, besides Sir Robert Borden, Sir George Perley, Mr. Hazen and Mr. Rogers were Canadian members. After the resumption of the Parliamentary Session on April 19, 1917, and the return to Canada on May 15, 1917, of the Canadian Ministers, the Prime Minister, in the House of Commons on May 18, 1917, made a statement as to the proceedings of the meetings of these two bodies and referred particularly to development in the constitutional relations between the United Kingdom and the Overseas Dominions, which had been thus inaugurated and which involved a decision to hold yearly meetings of the Imperial Cabinet for the consideration of matters of common concern to the Empire.

**Compulsory Military Service.**—At the conclusion of his speech in Parliament on May 18, 1917, the Prime Minister announced that early proposals would be made on the part of the Government to provide, by compulsory military enlistment on a selective basis, such reinforcements as might be necessary to maintain the Canadian army in the field as one of the finest fighting units of the Empire. Accordingly on June 11, 1917, the Military Service Bill was introduced, and on July 5, 1917, a motion for its second reading was carried by 118 votes to 55, after various amendments to the motion for second reading had been put and declared lost on division. The principal amendment, moved by the Leader of the Opposition (Sir Wilfrid Laurier), was to the effect that "the further consideration of the Bill be deferred until the principle thereof has, by means of a referendum, been submitted to and approved of by the electors of Canada." This amendment was lost on a division, the yeas being 62 and the nays 111. The Bill was assented to on August 29, 1917.

**War Loans.**—In addition to the first domestic war loan of \$100,000,000, raised in November, 1915 (see Canada Year Book, 1915, page 679), a second war loan of \$100,000,000 was raised in September, 1916, in the form of bonds, at the price of 97½ p.c. maturing on October 1, 1931, and bearing interest at 5 p.c. per annum. In March, 1917, a third war loan of \$150,000,000 in the form of bonds bearing interest at 5 p.c. per annum and maturing on March 1, 1937, was issued at the price of 96 p.c. and was considerably over-subscribed. On November 12, 1917, preparations were completed for the issue of a fourth Canadian War Loan in the form of five, ten and twenty year "Victory Bonds," in denominations as low as \$50, issued at par bearing interest at 5½ p.c. and maturing on December 1, 1922, 1927 and 1937. The subscriptions closed on December 1, 1917, and according to statements issued by the Victory Loan Organization Committee the amount subscribed exceeded \$400,000,000. For all these loans the interest is payable half-yearly and is exempt from taxation.

**Food Control.**—An Order in Council of June 16, 1917, made under the provisions of the War Measures Act, 1914, provided for the appointment of a Food Controller for Canada, and on June 21, 1917, the Hon.

## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

W. J. Hanna, K.C., of Toronto, was appointed Food Controller for Canada, without salary. In pursuance of the provisions of the Order in Council, the Food Controller has taken steps with the object of rendering available as large a quantity as possible of foods (a) for the allied armies; (b) for the civilian populations of the United Kingdom and the allied countries, and (c) for the civilian population of Canada at reasonable prices. Various Orders in Council regulating the sale and distribution of food products have been passed on the recommendation of the Food Controller, including Orders dated August 9, 24, September 18, October 11, 19, 23, November 2 and 15, 1917. Under these Orders public eating houses have been brought under regulation (August 9); the manufacture and free importation of oleomargarine is permitted, under license, as a war measure only (October 3); no grain or food substance may be used in Canada for the distillation of potable liquors (November 2); exports of food and other specified commodities are controlled (November 15); flour mills are licensed and regulated (November 15); and the Food Controller is given authority to license any or all food manufacturers and other dealers in foodstuffs and to prescribe conditions which shall govern the trade (November 15).

**Fixation of Wheat Prices.**—On June 11, 1917, a Board of Grain Supervisors of Canada, with offices at Winnipeg, was appointed by Order in Council under the War Measures Act, 1914, with wide powers of control over the disposition of grain, including the power to fix maximum prices at which grain may be sold. In pursuance of these powers the following prices per bushel of 60 lb. have been fixed for different grades of wheat to remain in force until August 31, 1918: from September 12, 1917, No. 1 Hard and No. 1 Manitoba Northern, \$2.21; Manitoba Northern No. 2, \$2.18; No. 3, \$2.15; Alberta Red Winter No. 1, \$2.21; No. 2, \$2.18; No. 3, \$2.15. Prices for other grades of wheat taking effect from October 1 and November 1, 1917, have also been fixed by the Board. These prices are based upon grain in store at the public terminal elevators at Fort William and Port Arthur.

**Wheat Placed on the Free List.**—By Order in Council of April 16, 1917, passed under the War Measures Act, 1914, wheat, wheat flour and semolina were placed on the Customs Free List from April 17, 1917, instead of being subject to the import duties previously payable. Under the provisions of the American tariff the removal of the Canadian import duties on wheat secures the entry, duty free, of Canadian wheat into the United States.

**Destruction of the Houses of Parliament.**—A fire which broke out in the reading room of the House of Commons at Ottawa at about 8.55 p.m. on Thursday, February 3, 1916, totally destroyed the Houses of Parliament and resulted in the loss of seven lives and in injuries to others who escaped with difficulty. Amongst those who lost their lives were Mr. Bowman Law, M.P., for Yarmouth, N.S., and Mr. J. B. R. Laplante, Assistant Clerk of the House of Commons. Mr. Martin Burrell,



## JUBILEE OF CONFEDERATION.

Minister of Agriculture, was seriously injured. Owing to the direction of the wind the Parliamentary Library fortunately escaped serious damage. A Royal Commission appointed on February 7, 1916, to inquire into the origin of the fire reported on May 15, 1916 [No. 72a 1916], but failed to ascertain conclusively the cause of the outbreak. The Dominion Houses of Parliament, thus destroyed, were completed in 1866, and formed one of the finest examples of Gothic architecture on the American continent. The demolition of the ruins and the rebuilding of the Houses on the same site were immediately undertaken, and considerable progress has been made with the erection of the new Houses under the control of a Parliamentary Committee, according to plans providing for improved accommodation. Meanwhile, arrangements have been made for the session of both Houses in a part of the building of the Victoria Memorial Museum at Ottawa, specially adapted for the purpose. On September 1, 1916, the ceremony of laying the corner stone of the new buildings was performed by the Governor-General (H. R. H. the Duke of Connaught), the stone being that which was laid as the corner stone of the original buildings on September 1, 1860, by the Duke's brother, the Prince of Wales, afterwards King Edward VII.

When returning from England in May, 1917, the Prime Minister brought back with him a gold Mace to replace the one destroyed by fire. The new Mace was presented to the Canadian House of Commons in 1916 by the Lord Mayor and Sheriffs of the City of London (Col. the Right Hon. Sir Charles Cheers Wakefield, Lord Mayor; Sir George Alexander Touche, M.P., and Sir Samuel George Shead, Sheriffs). On May 16, 1917, a resolution accepting the gift and conveying the warm thanks of the House to the donors was adopted on the motion of Sir Robert Borden, seconded by Sir Wilfrid Laurier.

**Jubilee of Confederation.**—Sunday, July 1, 1917, being the fiftieth anniversary of the Union of Upper and Lower Canada, Nova Scotia and New Brunswick under the British North America Act, 1867, a special Committee was appointed conjointly by the Senate and the House of Commons, under the Chairmanship of Sir George Foster, to consider the arrangements that should be made for celebration of the event. On May 31, 1917, the Committee recommended: (1) the issue of a topical pamphlet comparing and contrasting Canada of 1867 with Canada of 1917; (2) a proclamation inviting churches, Sabbath and day schools, colleges, municipal authorities, Canadian Clubs and other associations to co-operate in the working out of fitting commemorative services for the day; (3) that the provincial authorities be requested to arrange for a special official celebration of the anniversary; (4) that the Federal Government issue a commemorative postcard and postage stamp with appropriate design and legend representative of the work of the Fathers of Confederation; (5) that appropriate memorial services be held at London and Paris on July 1, 1917; (6) that upon the central

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<sup>1</sup>See House of Commons Debates, February 7, April 20 and May 31, 1917.



## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

stone column upholding the roof of the great entrance hall of the new Parliament buildings the following inscription be incised:

JULY  
1867 - - - - - 1917  
ON THE FIFTIETH  
ANNIVERSARY OF THE CONFEDERATION  
OF BRITISH COLONIES IN NORTH  
AMERICA  
AS  
THE DOMINION OF CANADA  
THE CANADIAN PARLIAMENT AND  
PEOPLE  
DEDICATED THIS BUILDING  
THEN IN PROCESS OF CONSTRUCTION  
AFTER DAMAGE BY FIRE  
AS A MEMORIAL OF  
THE DEEDS OF THEIR FOREFATHERS  
AND OF THE VALOUR OF THOSE  
CANADIANS  
WHO IN THE GREAT WAR FOUGHT FOR  
THE  
LIBERTIES OF CANADA  
OF THE EMPIRE  
AND OF HUMANITY.

and (7) that the Government arrange a fitting ceremonial service for setting in place and dedicating this inscribed stone at 12 noon on July 2, 1917.

This report was adopted, and the recommendations made were carried into effect. By Royal Proclamations of June 6, 1917, Sunday, July 1, 1917, was observed throughout Canada as a "day of humble prayer and intercession to Almighty God on behalf of the cause undertaken by the British Commonwealth and the Allies, and for those who are offering their lives for it, and for a speedy and enduring peace"; and Monday, July 2, 1917, was appointed as Dominion Day and for the special celebration throughout Canada of the Fiftieth Anniversary of Confederation. The Memorial Tablet bearing the inscription above recorded was unveiled by His Excellency the Governor-General (the Duke of Devonshire, K.G.) in the presence of a large representative assembly at noon on July 2, 1917, when speeches appropriate to the occasion were delivered by His Excellency and by Sir Robert Borden and Sir Wilfrid Laurier.

**The Quebec Bridge.**—The bridge which since 1900 has been in course of erection across the St. Lawrence, about eight miles above the

## BILINGUAL CONTROVERSY IN ONTARIO.

city of Quebec, was completed in September, 1916, with the exception of the placing of the central span. This span, having a length of 640 feet and a weight of 5,100 tons had been built on scows and taken up to the bridge to be hoisted into position. On September 11, 1916, when in the presence of a large gathering of people the span had been hoisted about twenty feet, a supporting shoe, used in the hoisting but not forming any part of the bridge, broke, owing to a defective casting, and the whole span fell into the river. This accident, which unhappily entailed the loss of the lives of twelve workmen, is the second that has occurred in the course of this work, the steel superstructure of the southern cantilever and anchor arms of the bridge having collapsed on August 29, 1907, when 60 lives were lost and eleven persons were injured<sup>1</sup>. The construction work of a new span was begun immediately, and the work of hoisting this into place, started on September 17, was successfully accomplished on September 20, 1917, thus completing the structure of the bridge.

**Bilingual Controversy in Ontario.**—During recent years an educational controversy has turned upon the rights of the French-speaking population of Ontario to the use of the French language in the public schools. On August 17, 1913, the Ontario Department of Education issued a "Circular of Instructions No. 17," providing that in what are known as English-French schools in Ontario the French language as a medium of instruction should not be used beyond Form I, except, on approval of the chief inspector, for pupils who were unable to speak or understand English. It was claimed by the opponents of the Circular that the rights of the French-speaking inhabitants under the British North America Act, 1867, were thereby infringed, and after legal decisions of the Canadian courts had been given against them, they carried an appeal to the Judicial Committee of the Privy Council in England. Judgment was pronounced by Lord Chancellor Buckmaster on November 2, 1916, which dismissed the appeal and upheld the legal validity of the "Instructions" issued by the Ontario Education Department. Another appeal at the same time, contending that an Act of the Ontario Legislature (5, Geo. V., Ch. 3) providing for the appointment of a commission to conduct the English-French schools of the city of Ottawa instead of the elected board of trustees was illegal, was allowed, and the Act was pronounced *ultra vires*.

**Census of the Prairie Provinces, 1916.**—The quinquennial census of population and agriculture was taken for the three Prairie Provinces of Manitoba, Saskatchewan and Alberta, for the date of June 1, 1916. The detailed results already available are included in other parts of this volume (see pages 95 to 105). The total population of the three provinces was returned as 1,698,220, as compared with 1,328,725<sup>2</sup> in 1911.

**Dominions Royal Commission.**—On September 2, 1916, the Dominions Royal Commission returned to Canada to complete the labours which, as noted in the Canada Year Book of 1914 (page 680), were suspended on the outbreak of the war. The members of the Com-

<sup>1</sup>See Canada Year Book 1907, pp. xxxiv-xxxv. <sup>2</sup>Including 6,616, the population of the new territory added to Manitoba by the Manitoba Boundaries Extension Act 1912.

## LEGISLATION AND PRINCIPAL EVENTS OF THE YEARS 1916 AND 1917.

mission opened their tour in the Sudbury-Cobalt-Porcupine region, and inspected the mining operations carried on there. They then held sessions at Saskatoon, Edmonton and Prince Rupert, returning east from Victoria where a session was held, visiting and holding sessions at Vancouver, Calgary, Regina, Winnipeg, Fort William, Toronto, Ottawa, Montreal and Quebec, whence they sailed for England on November 4, 1916. While in Toronto, members of the Commission visited Hamilton and the Niagara Falls. A great deal of information was gathered in Canada for the use of the Commission, and papers were prepared in advance of their visit by acknowledged Canadian authorities. Supplementary information was obtained from those who appeared personally before the Commission. At the various sittings further memoranda were suggested and subsequently prepared.

The following is a complete list of the Reports and Minutes of Evidence of the Dominions Royal Commission, which have been published in London, England, as Parliamentary Papers since the appointment of the original Commission on April 15, 1912:

Interim Reports: First, United Kingdom [Cd. 6,515]; Second, Australasia [Cd. 7,210]; Third, South Africa [Cd. 7,505]; Fourth, Newfoundland [Cd. 7,711]; Fifth, Canada [Cd. 8,457]; Final [Cd. 8,462]. Minutes of Evidence: London, 1912, Part I, Migration [Cd. 6,516], Part II, Natural Resources, Trade and Legislation [Cd. 6,517]; New Zealand, 1913, [Cd. 7,170]; Australia, 1913, Part I [Cd. 7, 171], Part II [Cd. 7,172]; London, November, 1913 [Cd. 7,173]; London, January, 1914 [Cd. 7,351]; South Africa, Part I [Cd. 7,706], Part II [Cd. 7,707]; London, June and July, 1914 [Cd. 7,710]; Newfoundland, 1914 [Cd. 7,898]; Maritime Provinces of Canada, 1914 [Cd. 7,971]; Central and Western Provinces of Canada, 1916, Part I [Cd. 8,458], Part II [Cd. 8,459]. Memorandum and Tables relating to the Food and Raw Material Requirements of the United Kingdom [Cd. 8,123]; Memorandum and Tables as to the Trade Statistics and Trade of the Self-Governing Dominions [Cd. 8,156].<sup>1</sup>

The Final Report giving the conclusions and recommendations of the Commission was published under date of February 21, 1917.

**Obituary.**—1915: Dec. 16. The Hon. F. S. Tourigny, puisne judge of the Superior Court of Quebec. 1916: Jan. 4. E. A. Lancaster, M.P. for Lincoln and Niagara, Ont. Jan. 6. Richard Grigg, Commissioner of Commerce. Jan. 8. The Hon. H. C. St. Pierre, judge of the Superior Court of Quebec. Jan. 19. The Hon. George Riley, of Victoria, B.C. Feb. 3. Bowman Law, M.P. for Yarmouth, N.S.; J. B. R. Laplante, Assistant Clerk of the House of Commons. Feb. 19. The Hon. F. M. Young, of Killarney, Man. June 3. Lt.-Col. G. H. Baker, M.P. for Brome, P.Q. (killed in action). July 28. The Hon. Sir Pierre Landry, Chief Justice of New Brunswick. Aug. 20. Major-Gen. Sir Frederick William Benson, K.C.B. Aug. 24. The Hon. F. T. Frost, of Smith's Falls, Ont. Aug. 31. The Hon. Napoléon Charbonneau, Justice of the Superior Court of Quebec; the Hon. J. T. Garrow, member of the Supreme Court of Ontario. Sept. 29. The Hon. John Costigan, of Victoria, N.B. The Hon. W. J. Macdonald, of Victoria, B.C. Oct. 17. C. H. Lovell, M.P. for Stanstead, P.Q. Nov. 7. The Hon. John Dunlop, Judge of the Admiralty Court,

<sup>1</sup>Copies of these reports may be obtained, while the supply lasts, from the Department of Trade and Commerce, Ottawa.

## OBITUARY, 1916 AND 1917.

Montreal. Nov. 13. The Hon. David MacKeen, Lieutenant-Governor of Nova Scotia. Nov. 17. The Hon. James A. Duff, Minister of Agriculture for Ontario, 1908-1916. Nov. 23. The Hon. Sir John A. Boyd, K.C.M.G., Chancellor of Ontario. Dec. 4. The Hon. James Kirkpatrick Kerr, of Toronto, Ont. Dec. 12. William Gray, M.P. for London, Ont. Dec. 19. The Hon. Robert McKay, of Montreal; Que. Dec. 29. The Hon. T. Chase Casgrain, M.P. for Quebec County and Postmaster General, 1914-1916. 1917: Jan. 6. The Hon. J. B. R. Fiset, of Rimouski, Que. The Hon. Sir Frederick William Borden, Minister of Militia and Defence, 1896-1911. Jan. 23. The Hon. Thomas O. Davis, of Prince Albert, Sask. Jan. 27. Brigadier-Gen. Walter Long, Aide-de-Camp to H.R.H. the Governor General, 1911-1913 (killed in action). Jan. 30. The Hon. Abner R. McClellan, Lieutenant-Governor of New Brunswick, 1896-1902. Feb. 10. The Hon. Sir Melbourne McTaggart Tait, formerly Chief Justice of Quebec. March 14. H.R.H. The Duchess of Connaught. April 6. Sir Henry N. Bate, Chairman of the Ottawa Improvement Commission. April 15. The Hon. Sir Lyman Melvin Jones, of Toronto. April 23. The Hon. Henry Corby, of Belleville, Ont. April 24. The Hon. G. T. Baird, of Victoria, N.B. May 27. The Hon. A. E. Richards, judge of the Court of Appeal, Man. June 8. The Hon. William Owens, of Montreal. Aug. 6. Sir Richard McBride, K.C.M.G., premier of British Columbia, 1903-1915. Aug. 11. The Hon. Sir William Mortimer Clark, Lieutenant-Governor of Ontario, 1903-1908. Aug. 29. Earl Grey, G.C.M.G., Governor-General of Canada, 1904-1911. Sept. 20. Col. Henry R. Smith, C.M.G., I.S.O., Sergeant-at-Arms, House of Commons, Ottawa. Oct. 31. The Hon. Gilbert W. Ganong, Lieutenant-Governor of New Brunswick. Nov. 10. The Hon. Thomas S. Sproule, M.D., of East Grey, Ont., Speaker of the House of Commons, 1911-1915.

**General Thanksgiving.**—Monday, October 9, 1916, and Monday, October 8, 1917, were observed as days of general thanksgiving to Almighty God for the bountiful harvests and other blessings with which Canada has been favoured.

### XIII.—EXTRACTS FROM THE CANADA GAZETTE, 1916 AND 1917.

**Privy Councillors.**—1917: Jan. 8. The Hon. Albert Sévigny, of Quebec. Oct. 3. Charles C. Ballantyne, of Montreal. Oct. 12. Major-General Sydney C. Mewburn, Adjutant-General of Militia; James A. Calder, of Regina, Sask.; Arthur L. Sifton, of Edmonton, Alberta; Thomas A. Crerar, of Winnipeg, Man.; Newton Wesley Rowell, of Toronto. Oct. 13. Frank B. Carvell, of Woodstock, N.B. Oct. 23. The Hon. Gideon D. Robertson, of Welland, Ont.; Alexander K. MacLean, of Halifax, N.S. Nov. 10. Hermidas Laporte, of Montreal.

**Lieutenant-Governors.**—1916: June 29. Gilbert W. Ganong, of St. Stephen, N.B., to be Lieutenant-Governor of the province of New



## EXTRACTS FROM THE CANADA GAZETTE, 1916 AND 1917.

Brunswick. Nov. 29. McCallum Grant, of Halifax, N.S., to be Lieutenant-Governor of the province of Nova Scotia. 1917: Nov. 6. The Hon. William Pugsley, of St. John, N.B., to be Lieutenant-Governor of the province of New Brunswick, in the room and stead of the Hon. Gilbert W. Ganong, deceased.

**New Senators.**—The following were appointed members of the Senate in 1917: Jan. 22. Frederic Nicholls, of Toronto, Ont.; Henry W. Richardson, of Kingston, Ont.; Gideon D. Robertson, of Welland, Ont.; George Lynch Staunton, of Hamilton, Ont.; Adam B. Crosby, of Halifax, N.S.; Charles E. Tanner, of Pictou, N.S.; Thomas Jean Bourque, of Richibucto, N.B. Jan. 31. Henry Willoughby Laird, of Regina, Sask. June 26. Lytton Wilnot Shatford, of Vancouver, B.C.; Albert E. Planta, of Nanaimo, B.C. June 29. George W. Fowler, of Sussex, N.B. July 26. John Henry Fisher, of Paris, Ont.; Richard Blain, of Brampton, Ont.; Lendrum McMeans, of Winnipeg, Man.; David Ovide Lesperance, of Quebec, Que. July 27. George Green Foster, of Montreal, Que. July 30. Richard Smeaton White, of Montreal, Que. Aug. 1. Roderic Harold Clive Pringle, of Cobourg, Ont.; Angus Claude Macdonald, of Toronto, Ont. Sept. 3. Aimé Bénard, of Bénard, Man. Oct. 23. George H. Bernard, K.C., of Victoria, B.C.; Wellington B. Willoughby, of Moosejaw, Sask.; Lieut.-Col. James Davis Taylor, of New Westminster, B.C.; Frederick L. Schaffner, M.D., C.M., of Boissevain, Man.

**Cabinet Ministers and other Members of the Government.**—1916: July 19. Franklin Blanchard McCurdy, of Halifax, M.P., to be Parliamentary Secretary of the Department of Militia and Defence. Oct. 21. Lt.-Col. Hugh Clarke, of Kincardine, Ont., M.P. for North Bruce, to be Parliamentary Under-Secretary of State for External Affairs during the continuance of the present war. Oct. 31. The Hon. Sir George Halsey Perley, Acting High Commissioner, to be Minister of Overseas Military Forces for Canada in the United Kingdom. Nov. 23. The Hon. Albert Edward Kemp, to be Minister of Militia and Defence in the room and stead of the Hon. Sir Sam Hughes, K.C.B., resigned.

1917: Jan. 8. The Hon. Pierre Edouard Blondin, of Grand'Mère, Que., to be Postmaster-General; the Hon. Esioff Léon Patenaude, of Montreal, to be Secretary of State and Minister of Mines; the Hon. Albert Sévigny, of Quebec, to be Minister of Inland Revenue. Aug. 25. The Hon. Arthur Meighen, of Ottawa, to be Secretary of State and Minister of Mines. Oct. 3. The Hon. Charles C. Ballantyne, to be Minister of Public Works in the room and stead of the Hon. Robert Rogers, resigned. Oct. 4. Hugh Guthrie, of Guelph, Ont., to be Solicitor General of Canada. Oct. 12. Major-General the Hon. Sydney C. Mewburn, to be Minister of Militia and Defence; the Hon. Arthur L. Sifton, to be Minister of Customs; the Hon. Sir George Halsey Perley, K.C.M.G., to be High Commissioner for Canada; the Hon. Sir Albert Edward Kemp, K.C.M.G., to be Minister of Overseas Military Forces of Canada; the Hon. Martin Burrell, to be Secretary of State and Minister of Mines; the Hon. John D. Reid, to be Minister of Railways and Canals; the Hon. Arthur Meighen, to be Minister of Interior; the Hon. Thomas

## JUDICIAL APPOINTMENTS.

Cromer, to be Minister of Agriculture; the Hon. Newton Wesley Rowell, to be President of the Privy Council; the Hon. James A. Calder to be Minister of Immigration and Colonization. Oct. 13. The Hon. Charles C. Bellentyne, to be Minister of Marine and Fisheries and Minister of Naval Service; the Hon. Frank B. Carvell, to be Minister of Public Works.

**Judicial Appointments.**—1916: Feb. 29. Victor Allard, of Perthier, Que., to be a puisne judge of the Superior Court of Quebec in the room and stead of the Hon. H. C. St. Pierre, deceased. Louis Joseph Alfred Desy, of Three Rivers, Que., to be a puisne judge of the Superior Court of Quebec in the room and stead of the Hon. F. S. Tourigny, deceased. Aug. 19. The Hon. Harrison Andrew McKeown, Judge of the King's Bench Division, to be Chief Justice of the King's Bench Division of the Supreme Court of New Brunswick. William Botsford Chandler, of Moncton, to be a judge of the King's Bench Division of the Supreme Court of New Brunswick. Sept. 9. Joseph Mathias Tellier, of Joliette, to be a puisne judge of the Superior Court of Quebec in the room and stead of the Hon. Napoléon Charbonneau, deceased. The Hon. Oswald Smith Crockett, judge of the King's Bench Division of the Supreme Court, to be judge of the Court of Divorce and Matrimonial Cases of New Brunswick. Nov. 14. the Hon. Frank Egerton Hodgins, of Toronto, Justice of Appeal of the Appellate Division of the Supreme Court of Ontario, to be local judge in Admiralty of the Exchequer Court in and for the district of Toronto. Dec. 4. William Nassau Ferguson, of Toronto, to be a judge of the Supreme Court of Ontario and a member of the Appellate Division of the said court in the room and stead of the Hon. J. T. Garrow, deceased. Hugh Edward Rose, of Toronto, to be a judge of the Supreme Court of Ontario and a member of the High Court Division and ex officio a member of the Appellate Division in the room and stead of the Hon. Sir John Boyd, deceased. Dec. 29. Charles Albert Ducles, of Montreal, to be a puisne judge of the Superior Court of Quebec. 1917: May 1. David MacEwan Eberts, of Victoria, to be puisne justice of the Court of Appeal of British Columbia. June 13. The Hon. John Alexander Mathieson, of Charlottetown, to be Chief Justice of the Supreme Court of Judicature of Prince Edward Island in the room and stead of the Hon. Sir Wilfred Sullivan, retired. July 20. Charles Percy Fullerton, of Winnipeg, to be a judge of the Court of Appeal of Manitoba in the room and stead of the Hon. A. E. Richards, deceased. The Hon. Lyman P. Duff, judge of the Supreme Court of Canada, to be Central Appeal judge under the Military Service Act, 1917.

**Commissions.**—1916: Feb. 7. Robert A. Pringle and His Honour D. B. MacTavish, of Ottawa, to be commissioners to inquire into and concerning the origin of the recent disastrous fire which destroyed the Parliament Buildings of Ottawa. May 9. Hector Edmond Dugré, of Quebec; Warren Hatheway, of St. John, N.B.; Theophilus Hatton Wardleworth, of Montreal; Frank Urgel Pause, of Montreal; James William Woods, of Toronto and George William Allan, of Winnipeg, to be commissioners to inquire in the United Kingdom, France, Belgium and Italy into the possibilities for the supply of Canadian products,

## EXTRACTS FROM THE CANADA GAZETTE, 1916 AND 1917.

natural and manufactured, which may be needed for the work of reconstruction in the said countries during and after the war, and also as to sources of supply in those countries for commodities needed in Canada and which formerly were obtained from Germany and Austria, and to report upon the same. July 13. Alfred Holland Smith, of New York, U.S.A.; Sir Henry Lumley Drayton, of Ottawa; Sir George Paish, of London, England, to be commissioners to inquire into, investigate and report upon the general problem of transportation in Canada, the status of each of the three transcontinental railway systems, the reorganization of any of the said railway systems or the acquisition thereof by the State, and all matters pertinent or relevant to the general scope of the inquiry. Sept. 1. John K. L. Ross, of Montreal; Col. Robert H. Labatt, of Hamilton, Ont. and Major John L. Todd, of Ottawa, to be pension commissioners to constitute the commission provided for by the pension regulations, the said John K. L. Ross to be chairman of the said commission, and the appointments to take effect from and after September 11, 1916. 1917: April 16. Robert A. Pringle, of Ottawa, to be a commissioner to inquire into and report concerning the manufacture, sale, price and supply of news print paper within Canada. Oct. 3. Adam Shortt, C.M.G., of Ottawa; Arthur G. Doughty, C.M.G., of Ottawa; Prof. Charles W. Colby, of Montreal; Thomas Chapais, of Quebec, and Prof. George M. Wrong, of Toronto, to constitute a board in connection with the Public Archives, to be called The Historical Documents Publication Board, with power to select and publish, with notes or otherwise as they may deem best, documents connected with the history and development of the constitution, trade, commerce, finance, industries and defence of Canada, the said Adam Shortt to be chairman of the said board.

**Imperial Honours and Decorations.**—To be Barons of the United Kingdom: Jan. 28, 1916. Sir Thomas George Shaughnessy, K.C.V.O. (Baron Shaughnessy of Montreal and Ashford, county Limerick, Ireland). May 15, 1917. Sir Hugh Graham (Baron Atholstan of Huntingdon, Quebec, and of the city of Edinburgh, Scotland). Nov. 18, 1916. The dignity of a Baronet of the United Kingdom was conferred upon Henry Vincent Meredith, president of the Bank of Montreal. To be Knight Grand Cross of the Order of St. Michael and St. George (G.C.M.G.): July 28, 1916. His Grace the Duke of Devonshire, K.G., G.C.V.O., on appointment as Governor-General of Canada. To be Knight Commander of the Order of St. Michael and St. George (K.C.M.G.): June 3, 1916. His Honour Pierre E. Leblanc, Lieutenant-Governor of Quebec. The Hon. James A. Lougheed, of Calgary, Alberta. September 14. Col. Arthur Percy Sherwood, C.M.G., M.V.O., Chief Commissioner of the Dominion Police. Feb. 12, 1917. The Hon. Albert Edward Kemp, Minister of Militia and Defence. The Hon. William Howard Hearst, Premier of Ontario. June 4. Col. (temp. Maj.-Gen.) Arthur W. Currie, C.B. Col. (temp. Maj.-Gen.) Richard W. Turner, V.C., C.B., D.S.O. Robert Alexander Falconer, LL.D., C.M.G., President of the University of Toronto. The dignity of a Knighthood of the United Kingdom was conferred upon the following: Jan. 1, 1916. Brig.-Gen. Alexander Bertram, Deputy Chairman of the



## IMPERIAL HONOURS AND DECORATIONS.

Imperial Munitions Board in Canada. The Hon. Frederick W. G. Haultain, Chief Justice of Saskatchewan. John Kennedy, Consulting Engineer to the Montreal Harbour Commission. The Hon. Louis Olivier Taillon, K.C., member of the Privy Council of Canada. June 3, 1916. The Hon. Wallace Graham, Chief Justice of the Supreme Court of Nova Scotia. The Hon. Pierre A. Landry, Chief Justice of the King's Bench Division of the Supreme Court of New Brunswick. Robert Frederick Stupart, Director of the Meteorological Service of Canada.

To be Companions of the Order of the Bath (C.B.): Jan. 14, 1916. Lt. Col. (temp. Brig.-Gen.) David Watson, Second Can. Infy. Brig. Jan. 1, 1917. Col. (temp. Brig.-Gen.) A. C. de L. Joly de Lotbinière, C.S.I., C.I.E.; Col. H. S. Birkett, C.A.M.C.; Col. J. A. Roberts, C.A.M.C. June 4, 1917. Col. (temp. Brig.-Gen.) A. D. McRae; Col. (temp. Brig.-Gen.) P. E. Thacker, C.M.G.; Lieut.-Col. (temp. Brig.-Gen.) G. S. Tuxford, C.M.G.; Lieut.-Col. (temp. Brig.-Gen.) A. C. Macdonell, C.M.G.

To be Companions of the Order of St. Michael and St. George (C.M.G.): Jan. 14, 1916. Col. Murray MacLaren, C.A.M.C.; Lt.-Col. (temp. Brig.-Gen.) C. J. Armstrong, Can. Enfs.; Lt.-Col. G. G. Nasmith, C.A.M.C.; Lt.-Col. A. C. Macdonald, D.S.O., Stratheona's Horse; Lt.-Col. C. M. Nelles, R.C.D.; Lt.-Col. A. E. Ross, C.A.M.C.; Lt.-Col. G. S. Tuxford, Fifth Can. Infy. Bn.; Hon. Maj. Rev. F. G. Scott. May 2, 1916. Lt.-Col. F. Etherington, C.A.M.C.; Lt.-Col. S. H. McKee, C.A.M.C.; Major E. G. Davis, C.A.M.C. June 3, 1916. Col. P. E. Thacker; Lt.-Col. W. O. H. Dodds, Can. Arty.; Lt.-Col. J. F. L. Embury, 28th Bn.; Lt.-Col. (temp. Col.) J. T. Fotheringham, A.M.C.; Lt.-Col. H. T. Hughes, Can. Enfs.; Lt.-Col. (temp. Brig.-Gen.) W. Bethune Lindsay, Can. Enfs.; Lt.-Col. A. H. Macdonell, D.S.O., R. Can. Horse Arty.; Lt.-Col. (temp. Brig.-Gen.) H. C. Thacker, Can. Local Forces; Hon. Lt.-Col. Rev. J. M. Almond, chaplain; Hon. Maj. Rev. W. Beattie, chaplain; Lawrence Fortescue, I.S.O., Contoller Royal Northwest Mounted Police; Frederick Montizambert, M.D., I.S.O., Director General of Public Health. Sept. 14, 1916. Lt.-Col. E. A. Stanton, Military Secretary to H. R. H. the Governor-General. Jan. 1, 1917. Col. (temp. Brig.-Gen.) H. D. B. Ketchen; Lt.-Col. (temp. Brig.-Gen.) R. Rennie, M.V.O., D.S.O.; Lt.-Col. (temp. Brig.-Gen.) G. B. Hughes, D.S.O.; Lt.-Col. (temp. Brig.-Gen.) E. W. B. Morrison, D.S.O.; Lt.-Col. E. C. Hart, C.A.M.C. Jan. 25, 1917. Lt.-Col. M. Alexander, Can. Local Forces; Col. G. P. Murphy, Can. Local Forces; Hon. Col. Rev. R. H. Steacy, Director of Chaplains' Service, Local Forces; Lt.-Col. J. G. Ross, Can. Local Forces. Feb. 12, 1917. Capt. E. H. Martin, R.C.N. Feb. 15, 1917. Lt.-Col. P. J. Daly, D.S.O., Can. Infy.; Lt.-Col. J. E. Leckie, D.S.O., Can. Infy. June 1, 1917. Col. (temp. Brig.-Gen.) H. E. Burstall, C.B.; Col. (temp. Brig.-Gen.) F. O. W. Loomis, D.S.O.; Col. R.F.M. Sims, D.S.O.; Lt.-Col. (temp. Brig.-Gen.) J. H. Elmsley, D.S.O.; Lt.-Col. (temp. Brig.-Gen.) Edward William, D.S.O.; Lt.-Col. (temp. Brig.-Gen.) V. W. Odham, D.S.O.; Lt.-Col. C. H. Mitchell, D.S.O.; Lt.-Col. G. E. Sanders, D.S.O.; Lt.-Col. (temp. Brig.-Gen.) D. Watson, C.B.; Col. C. A. Hodgetts, C.A.M.C.; Col. (temp. Brig.-Gen.) J. P. Landry;



## EXTRACTS FROM THE CANADA GAZETTE, 1916 AND 1917.

Col. (temp. Brig.-Gen.) F. S. Meighen; Lt.-Col. H. F. McDonald, D.S.O.; Col. C. A. Smart; Major and Bt. Lt.-Col. R. J. F. Hayter, D.S.O.; G. A. Bell, Financial Comptroller, Department of Railways; W. H. Walker, I.S.O., Assistant Under-Secretary of State for External Affairs.

To be Companions of the Imperial Service Order (I.S.O.): June 3, 1916. Edouard Gaston Daniel Deville, Surveyor-General, Topographical Surveys; Frederick Joseph Glackmeyer, Sergeant-at-Arms of the Legislative Assembly of Ontario. May 31, 1917. Pierre Martial Côté, K.C., Chief of the Remission Branch, Department of Justice; Lt.-Col. Thomas George Johnston Loggie, Deputy Minister of Lands and Mines, New Brunswick.

**Foreign Decoration.**—March 8, 1916. H. M. the King has granted leave to the Right Hon. Sir Robert Laird Borden, G.C.M.G., to wear the Grand Cordon of the Order of Leopold conferred upon him by H. M. the King of the Belgians.

**Imperial Service Medal.**—The following retired Government employecs have been granted the Imperial Service Medal in recognition of long and meritorious service. All of them belong to the Department of Railways and Canals, except where otherwise stated.

1916. Department of Marine and Fisheries: Cornelius O'Gorman, assistant lockmaster, Welland Canal, Ont.; John Smith, lockmaster, Cornwall Canal, Ont.; Henry Alfred Gilkie, lightkeeper, Sambro, N.S. Post Office Department: Frederick James George, letter carrier, Ottawa, Ont.; John Mahar, letter carrier, Halifax, N.S.; John Webster North, letter carrier, Hamilton, Ont.; Joseph Ward, letter carrier, London, Ont.

1917. Hermenegilde Aubin, conductor, Lévis, Que.; Thomas Clifford Ayer, conductor, Moncton, N.B.; Telesphore Begin, wheel press man, Rivière du Loup, Que.; David Pearson Bell, car inspector, Moncton, N.B.; Joseph Boucher, brakeman, Lévis, Que.; Dennis Bourgeois, section foreman, Memramcook, N.B.; John Herbert Brown, engineer's assistant, Moncton, N.B.; Nathan Burris, hostler, Truro, N.S.; Léandre Chenard, baggageman, Lévis, Que.; Robert Cullen, stores issuer, Truro, N.S.; Joseph Damours, brakeman, Rivière du Loup, Que.; Edward Daley, section foreman, Gloucester Junction, Ont.; William Allan Davies, foreman, Moncton, N.B.; Frank Derouin, conductor, Lévis, Que.; Edward Doucett, brakeman, Petite Roche, Que.; Richard Dougan, engineman, Charlottetown, P.E.I.; Xavier Dubé, section foreman, St. Moise, Que.; Robert Dunbar, conductor, Loggieville, N.B.; James Essery, section foreman, Kensington, Que.; David Ferguson, section foreman, Wentworth, N.S.; Peter Fogarty, section foreman, Sydney, N.S.; George Forgues, brakeman, Lévis, Que.; George Frève, section foreman, St. Paschal, Que.; Peter Alexander Gallagher, section foreman, Quispamsis, N.B.; Andrew Gallant, trackman, Millstream, Que.; Thomas Gillan, blacksmith, Charlottetown, P.E.I.; John Gillespie, chargehand, Moncton, N.B.; Adam Purdy Giles, roadmaster, Newcastle, N.B.; Frank Gillis, locomotive cleaner, Cape Traverse, N.S.; James Gorham, checker, St. John, N.B.; Alexander Black Gray, roadmaster, New Glasgow, N.S.; John Guess, blacksmith, Halifax, N.S.; John Hackett, engineman, Moncton, N.B.; Thomas Hanway, engineman, Truro, N.S.; Joseph Louis Hébert, conductor, Rivière du Loup, Que.; William Robert Hoey, fireman, Moncton, N.B.; Aaron Hubley, carpenter, Halifax, N.S.; Charles Bedford Keith, station agent, Berrys Mills, N.B.; Fortunat Laliberté, conductor, Lévis, Que.; Philippe Leclerc, chargeman, Rivière du Loup, Que.; Edwin Nelson Lockhart, bridge inspector, Moncton, N.B.; William Brouard MacKenzie, right-of-way and lease agent, Moncton, N.B.; William McAdoo, carpenter, St. John, N.B.; Patrick McCloskey, boilermaker, Charlottetown, P.E.I.; James Stewart McClure, carpenter, Moncton, N.B.; John McDonald, section foreman, Millstream, Que.; George Hamilton McEwen, freight agent, Truro, N.S.; John Thomas McGinn, conductor, Moncton, N.B.; Hugh McLeod, extra gang foreman, Emerald, N.S.; John McPherson, fitter

## OFFICIAL APPOINTMENTS.

Charlottetown, P.E.I.; Louis Martin, car repairer, Rivière du Loup, Que.; Samuel Miller, foreman carpenter, Newcastle, N.B.; George Moore, machinist, Moncton, N.B.; Louis Moreau, stationary boiler fireman, Lévis, Que.; John Albert Murray, station agent, Shediac, N.B.; John Eric Oakleaf, engineman, Dalhousie, N.B.; Peter Oliver, tool inspector, Charlottetown, P.E.I.; Luc Séraphin Paulet, conductor, Lévis, Que.; William Richard Payne, station agent, Newcastle, N.B.; Pierre Pettigrew, baggagemaster, Rivière du Loup, Que.; John Phelan, porter, Halifax, N.S.; William Robert Powell, section foreman, Painsec Junction, N.B.; James Roche, section foreman, Bedford, N.S.; Didace Rodrigue, operator, Rivière du Loup, Que.; John Ryan, section foreman, Nauwigewauk, N.B.; Charles Edward Simmons, painter, Charlottetown, P.E.I.; William Harvey Steeves, fitter, Moncton, N.B.; Arthur Stockall, foreman, blacksmith, Moncton, N.B.; John Sullivan, section foreman, Rogersville, N.B.; Benjamin Tucker, foreman pipe fitter, Moncton, N.B.; Frederick William Welling, engineman, Moncton, N.B.; Frederick Wright, hostler, St. John, N.B.; James Chapman Wortman, carpenter, Moncton, N.B.; Thomas Baker, lightkeeper, Department of Marine and Fisheries, Peases Island, N.S.

**Official Appointments.**—1916: June 3. The Hon. Joseph Bolduc, of St. Victor de Tring, Quebec, to be Speaker of the Senate, in the room and stead of the Hon. A. C. P. R. Landry, resigned.

Nov. 13. To be members of the Staff of His Excellency the Governor-General and Commander-in-Chief of Canada: Lieut.-Col. the Hon. Harold G. Henderson, to be Governor-General's Secretary and Military Secretary; Arthur F. Sladen, C.V.O., C.M.G., to be Private Secretary; Lord Richard Neville, C.V.O., C.M.G., to be Comptroller of the Household; Captain Angus Alexander Mackintosh, Royal Horse Guards, Captain R. O. R. Kenyon - Slaney, Grenadier Guards, and Captain V. F. Bulkeley-Johnson, Rifle Brigade, to be Aides-de-Camp. Nov. 18. Lieut.-Col. Henry R. Smith, C.M.G., I.S.O.; Col. Sir A. Percy Sherwood, K.C.M.G., M.V.O., to be Honorary Aides-de-Camp to His Excellency the Governor-General. 1917: Jan. 18. Captain M. A. T. Ridley, Grenadier Guards, Special Reserve, to be Aide-de-Camp to His Excellency the Governor-General, from Jan. 8, 1917.

Feb. 20. Austin Ernest Blount of Ottawa, to be Clerk of the Parliaments, Clerk of the Senate and Master in Chancery of the Dominion of Canada, from March 15, 1917, in the room and stead of S. E. St. Onge Chapleau, retired. March 22. Austin Ernest Blount, of Ottawa, Clerk of the Senate and designated as Clerk of the Parliaments, to be commissioner to administer the oath of allegiance to the members of the Senate and to take and receive their declarations of qualifications.

April 12. Captain Edward H. Martin, C.M.G., R.N., to be Honorary Aide-de-Camp to His Excellency the Governor-General.

April 14. Sir Henry Kelly Egan, of Ottawa, who was appointed a member of the Ottawa Improvement Commission on Jan. 18, 1913, to be Chairman of the said commission in the room and stead of Sir Henry N. Bate, deceased.

April 18. Prof. R. F. Ruttan, of the McGill Medical School, Montreal, to be a member of the Board of Examiners, constituted under the provisions of sec. 9, c. 133, R.S.C., 1906, "An Act Respecting the Adulteration of Food and other Articles," in the room and stead of Dr. G. P. Girdwood, resigned. Oct. 3. Clarence Jameson, of Digby,

## EXTRACTS FROM THE CANADA GAZETTE, 1916 AND 1917.

N.S., to be a member of the Civil Service Commission. Oct. 4. Captain Willard P. Purney, of Liverpool, N.S., to be Assistant Clerk of the Crown in Chancery, in accordance with provisions of the Military Voters' Act, 1917. Oct. 9. The Hon. William J. Roche, M.D., of Ottawa, to be a Member and Chairman of the Civil Service Commission; Angus A. McLean, of Charlottetown, P.E.I., to be Comptroller of the Royal Northwest Mounted Police, from Oct. 15, 1917, in the room and stead of Laurence Fortescue, I.S.O., retired. Oct. 11. William F. O'Connor, of Ottawa, to be General Returning Officer under the provisions of the Military Voters' Act, 1917.

SELECTION OF ARTICLES AND TABLES IN THE CANADA YEAR BOOK  
OF 1913, 1914 AND 1915 WHICH ARE NOT REPEATED IN THE  
PRESENT ISSUE.

## SPECIAL ARTICLES.

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History of Canada. Prepared under the direction of ARTHUR G. DOUGHTY, C.M.G., LL.D., Deputy Minister, Public Archives of Canada. With 18 illustrations. . . . .	1913	1-29
Constitution and Government of Canada. By THOMAS BARNARD FLINT, M.A., LL.D., D.C.L., Clerk of the House of Commons of Canada, Ottawa. With 8 illustrations. . . . .	1914	1-17
Local Government of Canada: Maritime Provinces. By THOMAS BARNARD FLINT, M.A., LL.B., D.C.L., Clerk of the House of Commons of Canada, Ottawa. . . . .	1915	1-7
Quebec. By C. J. MAGNAN, Inspector General of Roman Catholic Schools, Quebec. . . . .	1915	8-10
Ontario. By ERNEST H. GODFREY, F.S.S., Editor, Census and Statistics Office, Ottawa	1915	11-14
Manitoba, Saskatchewan and Alberta. By the REV. CAPTAIN EDMUND H. OLIVER, Ph.D., Principal of the Presbyterian Theological College, Saskatoon, Saskatchewan, and Chaplain of the 196th (Western Universities) Overseas Battalion. . . . .	1915	14-23
British Columbia. By S. D. SCOTT, Vancouver, B.C. . . . .	1915	23-26
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Geology and Economic Minerals. By R. W. BROCK, M.A., F.G.S., Deputy Minister of Mines, Ottawa. With 5 illustrations. . . . .	1913	41-46
Geology in Relation to Agriculture in Canada. By WYATT MALCOLM, Department of Mines, Ottawa. With 4 illustrations. . . . .	1914	34-38
Flora of Canada. By J. M. MACOUN, C.M.G., F.L.S., Assistant Botanist and Naturalist, Department of Mines, Ottawa and M. O. MALTE, Ph.D., Dominion Agrostologist, Department of Agriculture, Ottawa. With 7 illustrations. . . . .	1915	43-55
Faunas of Canada. By P. A. TAVERNER, Department of Mines, Ottawa. With 6 illustrations. . . . .	1915	55-63
Climate and Meteorology. By A. J. CONNOR, M.A., Climatologist of the Meteorological Service of Canada. . . . .	1913	113-122
General Survey of the Climate of Canada. By R. F. STUPART, F.R.S.C., Director of the Meteorological Service of Canada, Toronto. . . . .	1914	128-139

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